

THE CALCUTTA REVIEW.

ALFRED SAUNDERS DYER, M.A., F.S.A., EDITOR.

NUMBER CCXXXV.

JANUARY 1904.

CHANTS AND HYMNS OF THE CHURCH OF ARMENIA. By
•Amy Apcar.

INDO-ARYAN EXPANSION AND THE EARLY RELATIONS OF
THE ARYAS WITH THE PRE-ARYANS. By Rama Prasad
Chanda.

REGINALD HEBER. By Walter K. Firminger, M.A., F.R.G.S.
THE PRE-MALAYAN. By F. Emeric.

A QUARTER OF A CENTURY OF LAND REVENUE ADMINIS-
TRATION IN MADRAS. By A. Rogers, late B.C.S.

THE PRECESSION, CLIMATIC AND DECLINATION CYCLES,
THEIR INFLUENCE IN THE FORMATION OF POLAR ICE
AND THE EXISTENCE OF NATIONS. By David Gostling,
F.R.I.B.A.

TOURS AND TRAVELS. By Robert Needham Cust, LL.D.

ACROSS THE PELOPONNESUS. By H. R. James.

CRITICAL NOTICES.—Acknowledgments, &c.

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THE CALCUTTA REVIEW.

VOLUME CXVIII.

January 1904.

No man who hath tasted learning but will confess the many ways of profiting by those who, not contented with stale receipts, are able to manage and set forth new positions to the world ; and, were they but as the dust and cinders of our fire, so long as in that notion they may yet serve to polish and brighten the armoury of truth, even for that respect they were not utterly to be cast away.—MILTON.

Calcutta :

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THE CALCUTTA REVIEW.

No. CCXXXV.

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ԱՅՍՈՐ, ԸՆԴ ՀՐԱԿԵՐՊԵԱՆ

AISOR UNTH HRAKIERPIAN.

ANTIPHON. *I lifted up mine eyes to the mountains, from whence shall come my help.*

This day with the hosts of the flame-like, the aged offered blessings with branches, and the children with palms; Hosanna to Him that cometh in the Name of the LORD.

He on Whom the seraphim could not gaze with sheltered faces, sat on the unriden colt, praised by the children; Hosanna to Him that cometh in the Name of the LORD.

This day, with the aged and the children, do we also praise Thy advent as a new King to Jerusalem: Hosanna to Him that cometh in the Name of the LORD.

Blessed is He that cometh in the Name of the LORD, blessed art Thou Who shalt come again.

Բ4. ♩ = 78.

MODE 4.

Ձայն. Համեարձի

, զազարի ի լի - ռին -



Mode. Hampar-tsi.

. zachs im i lie - rin -

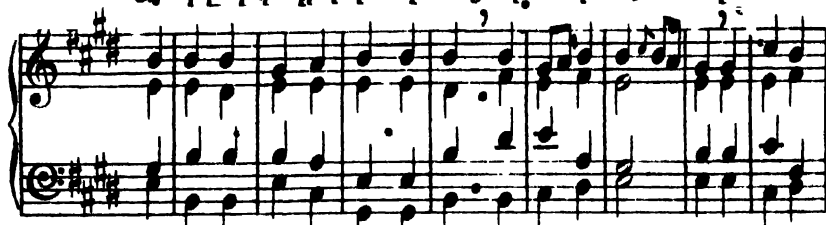
ս, ուստի ե-կես-ցէ ինձ օգ - նութիւ - ն



s us-thi iekies - tsä ins ok - nu - thiü - n.

Վիմագրատուն եւ տպարան Բրէյտկովսկի եւ Հերտել:

Այսօր ընդ հրակիրքս անդառնցն օրհնա-բանէ - ի ն



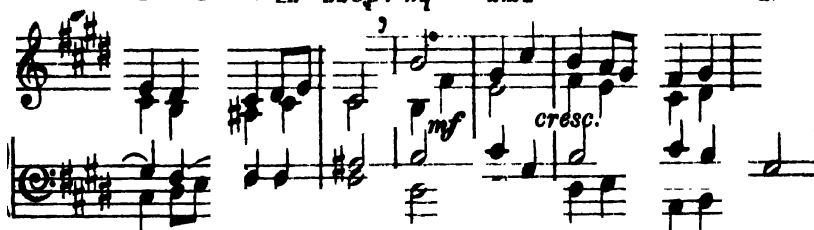
Ai-sor ünth hrakier pian thasutsn orh-na^e pa-nä - - i - n

ծերքն ու - տով - - ք և տղայքն ար - մա -



tsierkn wos-thov - - k iev thgraikn ar- - ma -

- : - ւի-նեօք. ով - սան - - - ն



- vie - niok ov - san - - na

օրհ - նեալ . ե - - կիալ ի յա - - նուն Տիարն



orh - nial . ie - - kial i ha - - nun Thiarn.

III

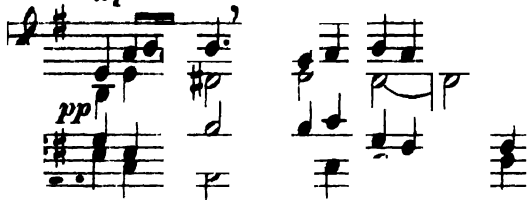
ՈՎԻԵՆ ՍՈՒԿԱ

OV IEN SUOKA.

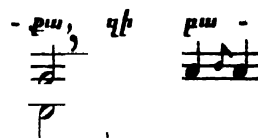
Ի ներքուստ ասիցէ:

And from inside he shall say.

Ով էն $\text{♩} = 56 - 80.$
un -



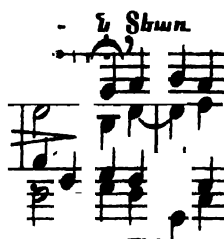
Ov ien suo -



ka, zi pa -



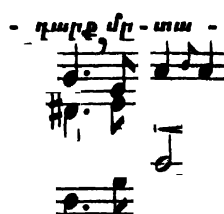
- tsi - ts zi ais thur -



- n Thiar -



n a iev ar -



- thark mū-tha -



- nie - n ūnth sa.

ՇՆՈՐՀԵԱ ՄԵԶ ՏԵՐ

SHNORHIA MIEZ TER.

Grant us, LORD, vigilance with the wise virgins, and make bright the lanterns of our souls.

With shuddering do we fear to hear from Thee, O LORD, the answer, Verily I say unto you, I know you not.

When Thou shalt come in the glory of Thy FATHER, to judge the whole world, grant to us to stand on thy right hand,

That the door of mercy of the heavenly Bridegroom may be opened unto us, and that we may enter the nuptial abode with the wise virgins,

That we may be ready to meet the Bridegroom, and that we may enter the nuptial abode, and be not kept out with the foolish virgins.

That the lanterns of our souls may remain bright, and that we may be numbered amongst the united guests in the feast of the heavenly Bridegroom.

№ 2. ♩ = 80.

MODE 3.

I. Շնորհեա մեզ տէր արթնութիւն ընդ ի մաստուն կուսանացն



I. Shnorhia miez Ter arthnuthiun ūnth i mas-thun ku-sanatsn

Լ զհո-գւոց մե-րոց լապ-տերիս պայ-ծա-ռա ցո .



lev zhuerkuerts mieruots lapthierus pai - tsa-ra - tsuo .

ԶԻԷՉ ՕՐՀՆԵՄԻ

ZKIEZ ORHNIEMK.

Thee do we bless, Everlasting King, Immortal GOD of our fathers.
He Whom created nature could not contain as GOD, is by death enclosed within the new heyn grave, thus creating of me a new man: Thee do we praise, O GOD of our fathers.

He Who was an unsealed writing is sealed by a ring, preserving us in safety by our faith in the Trinity: Thee do we praise, O GOD of our fathers.

Sung in the morning only

[O all ye works of the LORD, bless ye the LORD, praise Him and magnify Him in the highest for ever. O ye heavens, bless ye the LORD, praise Him and magnify Him in the highest for ever. Glory.]

Bless CHRIST the King, Who is honoured with awe by the invisible hosts, and magnify Him in the highest for ever. [Now and ever.]

Bless ye the unconquerable King, the Treasure of immortality, Who is guarded by the soldiers.

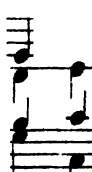
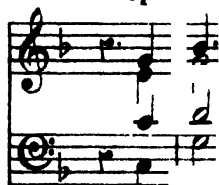
ՀԱՐՑ ԳԶ. ♩ = 72.

HYMN OF THE FATHERS. MODE 5.

[FOR THE MORNING. *Antiphon.* Bless the LORD GOD of our fathers, and praise His Name for ever.]

Օրհ - նիւ -

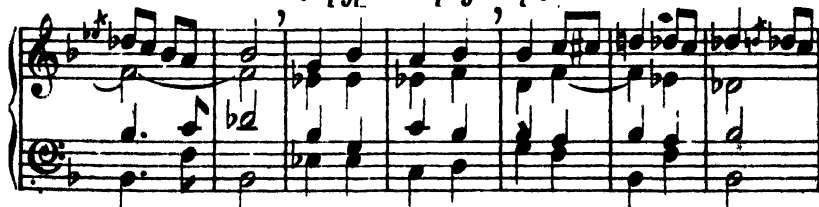
l hu Stp Աստ - ու -



Orh - nia

l ies Ter Ast - va -

Հարցըն միտոյ օրհնիւ -



- ts hartsün mieruots orhnia -

VI

-l phā- ւո - րեալ ա - նուն՝ զոյա - սի - տիւն:



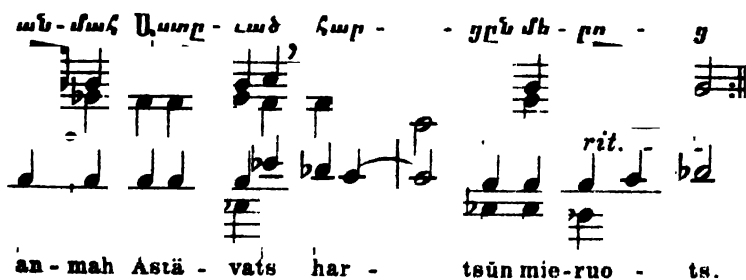
-l phā-ra vo - rial a - nun kuo ha - vi - thian.

Կողմն: Զքեղ օրհ - նեմըք, Թագաւոր յա - լիտե - նից.



Side. Zkiez orh - niemük tha-ka - vor ha - vi-thie - nits

ան-մահ Աստու - ւած հար - - ցըն մե - րո - ց



an - mah Astä - vats har - tsün mie-ruo - ts.

ՔՐԻՍՏՈՍ ՓԼՈՒԱՅ

CHRISTHUS P'HARATS.

CHRIST the KING of glory, fulfilling the law, comes this day to be presented, on the fortieth day, to the town of Jerusalem, to the aged Simeon. His coming was proclaimed and His entry was awesome. The aged man was crying out in the temple what Isaiah had joie told, awake, arise, come forth, O Jerusalem, and with great joy arouse thy children to meet thy SAVIOUR.

(Other verses of the same kind.)

♩ = 66.

1. Քրիստոս - փառաւ - ց թաղաւ - և որ - ն.
 2. յե - րու - սաղէ - մ քաղա - քի - ն.
 3. Տարփո - ղե - լո - վ ծե - բու - նի - ն.
 4. Զարթի - ր զարթի - ր զուգար - թի - ր
 5. Մեծա - պայծա - ո ջն - ծու - թեա - մբ
 6. Աստուա - ծա - յի - ն հրա - մա - նաւ - ն.
 7. Ի գիր - կո ա - ռեա - լ Սի - մէ - ո - վն,
 8. Արդար - ձա - կեա - ար - ձա - կեա .

1. այ - օր . ե - կեա - լ յըն - ծա - յումն.
 2. առ Սի - մէ - ո - վն ծե - բու - նին.
 3. Հայ - նէր . Ի մէ - ջ տա - ճա - բին.
 4. Ե - բու - սաղէ - մ զուգար - թի - ր,
 5. Փրկ - չի ն ե - լեա - լ ընդ յա - ուջ,
 6. կայր ծե րա - ցեա - լն Սի - մէ - ովն.
 7. զԱստուա ծ - որ - ղի - ն և ա - սէր.
 8. ծերս Ի մե - ղա - ց կա - պա - նաւ.



1. կա - տա - - - րե - լո - զ նա զօ - րէն
 2. Բար - բառ : . ե - դէ . . զա - լս - տեան -
 3. զոր մար - - զա - րէ - ն Ե - սա - յի .
 4. ու - րա - - խու - թեա - մք ցն - ծու - թեա -
 5. Տա - ճա - - րա - պետ - ն Քրիս - տո -
 6. ոչ տե - - սա - նէ - ր նա ըզ - մա -
 7. արդ ար - - ձա - կեա . . ար - ձա - կեա .
 8. Արդ ար - - ձա - կեա . . ար - ձա - կեա .



1. -ս. քա - ղաւ - նօ րեայ զա - լը - ուտեամբն:
 2. -ն է ա - հա գին ո - րո - տ - ման:
 3. . յա - ռա - ջա գոյն գու - շէ - կեաց:
 4. -մք զման - կու - նը - ս քոյ դու զար - թո:
 5. -ս այ - սօր ե կեալ ՚ի տա - - ճարն:
 6. -հ մի - նչ տես ցէ նա զօ - - ծեալն:
 7. . ծե ՚ի կա պից ար - ձա - - կեա:
 8. . ծերս ի կա պից օ - րի - - նաց:

Ի ՅԱՐՈՒԹԵԱՆ

I HARUTHIAN.

On the day of resurrection, at the coming of the Saviour, the children spread their garments and praised with ceaseless voices, saying, Blessed is He that cometh in the Name of the LORD.

As offerings they brought branches of trees, strewing them in the way of the SON of GOD, and praised with ceaseless voices, saying, Blessed is He that cometh in the Name of the LORD.

The aged poured forth blessings, and the children glorified Him, and praised with ceaseless voices, saying, Blessed is He that cometh in the Name of the LORD.

ԴՁ.

♩ = 78.

MODE 7.

I. Զայն Ի յարու-թեա - - ն յաւուրգաւրստեան Փըրկչին



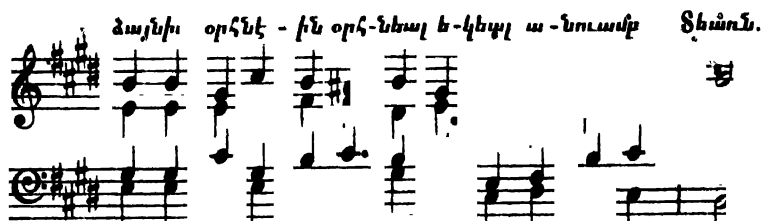
I. Mode I haru - thia - - n ha-vur ka-lus-thian Phürk-chin

տարա-ծանէ - ին մանկունքն ըզ - հանդերձս, և անդադար



tha-ra-tsa-nä in mangunkn üz - han-thierts iev antha-thar

X



tsai-niv orh-nä - in orh-nial ie-kial an - vamp Thiar'n.

II. Գործն. Ոստա ի ծա - ոռ

բերեալ մատուցա - նէ -



II. Side. Wost's i - tsa - ruo - - ts pie-riäl ma-thu-tsa-nä -



in Astvats vor-thuin ar cha-na-par-havn iev an-tha - thar



tsai-niv orh-nä - in orh-nial ie-kial an - vamp Thiar'n.

XI

ՈՒՐԱԽ ԼԵՐ

URAKH LIER.

Rejoice, holy church, at the advent of the Holy Only Begotten;
be glad and rejoice together with all the saints.

ՔԿ. ♩ = 56-60.

con molto espressione

MODE 4.

Ձայն. Ու-րախ Լի - - ր Կ - Լի - - շի - ցի -



Mode. U-rakh. lier - ie-kie - - ghe-tsi.

- սուրբ Ի զա - - լրստեա - - ն սուրբ . միած - -



surp i ka - - lüsthian . . surp . . Mi-ats - -

նին. ուրա - խ Լի - - ցընծա . . հանդերձ ա -



nin, u-rakh . lier iev . . tsün-za . . hanthierts a -

XII

- մե-նայ - ն սըր - ռովք: (Երեցս կրկնեա.)



- mie-nain . sur - puovk. (Sung thrice.)





40 587
19

CALCUTTA REVIEW.

No. 235—JANUARY 1904.

Art. I.—CHANTS AND HYMNS OF THE CHURCH OF ARMENIA.

WITH EXAMPLES.

THE Church of Armenia possesses a very large collection of hymns and chants in her Hymnal, or *Sharakan*, and in her Church Service, or *Jama-Kirk*, literally, Hour-book (containing all the daily offices). These writings are very old, dating from the 4th century to about the 12th and the greater portion are ascribed to the Saints Isaac and Mesrope (390), their disciples and followers, and to Saint Nierses Full-of-Grace (1166), and to many other fathers of the Church whose names have not been so well preserved. The character of the writings contained in the Hymnal is generally a kind of poetical prose; there are several acrostical compositions in the Service Book, and, in both volumes, those of later date include a certain number of metrical compositions. The style abounds in antithetical images, and allusions to the Old Testament prophecies. The following extracts from the Hymns for Good Friday offer a fair example of the writings of these early Fathers on the Burial of our Lord:—

The Bestower of gifts on all is this day sought as a gift from Pilate, and He Who clothes Himself with light, as it were a garment, is pleased to be shrouded by Joseph.

The Giver of life to all is this day placed in a new-hewn grave, and the Treasure of immortality is sealed with the ring of the priests.

Christ, Who is the ever living One, this day is begged from Pilate as a corpse, and He Who was the covering of the nakedness of Adam, willed to be shrouded by Joseph.

The Sun of Righteousness, Christ, was this day placed in a dark pit, and the Ray of Glory from the Father was hidden under a stone in the midst of the earth.

The ever-watchful Creator of all this day slumbers amidst the dead ; the sleepless Watcher over Israel is guarded by soldiers.

From a Litany sung on Holy Thursday :—

O Great God and wonder-working Power, uncreate Essence, Who in mercy wast pleased to create all things out of nothing, we beseech Thee,

Hear, Lord, and have mercy.

O Thou, who hast stretched the skies as a tent over the waters, making the firmament a dwelling for Thine uncircumscribable God-head, and Who didst create all the wonders thereof to the praise of Thy Holy Name, we beseech Thee,

Hear, Lord, and have mercy.

Thou didst make the seraphim and the cherubim and the incorporeal beings of spiritual fiery nature to hymn Thee with trisagion chants, and with them wast pleased to accept from the earthborn glorification and praise of Thy omnipotent sovereignty ; we beseech Thee,

Hear, Lord, and have mercy.

Ineffable Dawn and Ray of the Unfathomable and Incomprehensible Father, Who didst become very Man, and Who didst, O Lover of mankind, come down for our salvation, we beseech Thee,

Hear, Lord, and have mercy.

Thou the Fulfilment of the laws and the prophets, Who didst come of Thine own free Will to the mystic upper Chamber, and, with ineffable humility, didst wash the feet of the Apostles, we beseech Thee,

Hear, Lord, and have mercy.

From a hymn sung on Lenten evenings :—

Father of Pity, in love look down,
Upon us, Thy creatures, the works of Thy Hands.
Around us, weaklings, encamp, O Lord,
The angel-guard of Thine armed hosts.
From danger protect and deliver our souls,
And from him that walketh in darkness abroad ;
So that we may, by night and by day,
Thy glories unceasingly sing.

Son and Word of ineffable Birth,
O Being Eternal and Uncreate,
Who hast appointed the day for work,
The darkness of night for rest.
Such slumber grant to our mortal eyes,
That, sleeping, we in spirit may wake ;
So that we may, by night and by day,
Thy glories unceasingly sing.

Lord and Master of reasoning Souls,
Fount of Light and Dispenser of gifts,
When closing the gates of our earthly frames,
To the eyes of our souls, O grant Thou light.
That during the night we may haste to Thee
And, with the fire formed, offer Thee praise ;
So that we may, by night and by day,
Thy glories unceasingly sing.

O Being of Light without shadow or turning,
Before Whose Presence we stand in prayer,
Who didst appear at eventide,
To the Eleven within closed doors.
With Thomas do we cry to Thee,
O Lord our God, we do confess Thee !
Be with us, Lord, when falls the night,
Descend amongst us, saluting our souls.

Assembled here do we beseech Thee,
Send down to us Thy help, we pray.
O Watcher over Israel,
Be Thou the Guardian of our souls.
O dwell with us, Bestower of Peace,
So shall we slumber undisturbed ;
When morning breaks to haste to Thee,
To Father, Spirit, offering praise.

Apart from matters of ritual, the first thing that would strike a member of a Western, say of the Anglican, Church, on attending the daily services of the Armenian Church, would be the unusual amount of singing he would hear as compared with the services of his own Church. While, in an English Cathedral with an organ and full choir of men and boys, the daily offices of Matins and Evensong would include, respectively, the morning and evening Psalms, the Venite, Te Deum and Benedictus, the Magnificat and Nunc Dimittis, with an anthem at each service, the daily offices of an obscure Armenian Church with a staff of perhaps one or two singers, besides the clerk and the parish priest, present a very different aspect.

The service commences at dawn with the Lord's Prayer and three or four psalms, followed by five long chants and one or two short prayers. A separate office for departed souls must be read and chanted on days when the Eucharist is to be

celebrated, and this contains a special hymn of 15 to 18 verses. This forms but the prelude to the morning devotions. There follow the offices of the first hour, of the third, sixth, and ninth hours. Each office contains not only its own special hymn, but many others, long and short, some most complicated and difficult, some of 30 or 40 verses, others of only three. On Saints' days and fast-days others are added to the daily number. Nothing must be omitted, all must be faithfully gone through. Special daily hymns in addition are sung during Lent. On feast-days, Saints' days, Martyrs' days, there are separate and special hymns for each office. In convents and monasteries the canonical hours of course are observed, but in parish Churches the morning's devotions include all to the end of the office for the ninth hour, and the evening devotions include the remainder.

The service for the Celebration of the Holy Eucharist possesses again a set of hymns apart from the daily offices, and lasts about one hour and a half. The part taken audibly by the Celebrant in the service is very slight, and the service, with the exception of the reading of two Lessons and the Gospel, and the recitation of the Creed, is entirely composed of singing.

All hymns are sung according to eight ancient ecclesiastical modes. The Armenian names for these modes are alphabetical, as follows :—

1 Aip-tsa	2 Aip-kien
3 Pien-tsa	4 Pien-kien
5 Kiem-tsa	6 Kiem-kien
7 Tha-tsa	8 Tha-kien

It will be seen that each word ends in *tsa*, or in *kien*. In Western Churches, the sides in antiphonal singing are distinguished as Cantoris and Decani.

In an Armenian Church the sides, with regard to the chanting, are distinguished by means of the names of the **modes**. The chancel is divided by pillars into three portions, the north and south choirs, and the central and largest portion which faces the altar. The daily offices are sung from the north and south choirs, antiphonally, and the reading takes

place in the central portion. Each day in the year has its own appointed mode, beginning with the first day of Lent. On this day all hymns belong to the first mode, on the second day, all to the second mode, and so on, in rotation.

In order, apparently, to preserve a perfect balance in the services, all the modes ending in *tsâ*, which are the four primary modes, belong during one year to the north choir, and the four secondary modes ending in *kien*, to the south choir. In the following year, *vice versa*, from the commencement of Lent. Certain hymns, the principal ones, must be commenced by the side on which falls the mode of the day, others again by the opposite side. Therefore the modes may be said to regulate the entire service.

The Armenian word for mode, *Tsain*, means Voice, to take the *musical* signification; for the other meaning, regulating the services, I can find no adequate translation. Each mode or voice has its own characteristics, which are embodied in a set of antiphons, or preludes, to the daily hymns. These antiphons, of which there are about seventy or eighty ordinary ones, besides the feast-day antiphons, form the first studies of choir singers who are taught orally, after the old method. For there is no written music to the hymns and chants sung in Armenian Churches where the chanting is conducted according to the ancient style. Certain old signs are placed over the words in the old hymn-books, but these signs, which are the same for all modes, show nothing beyond pointing out the syllables on which rest the characteristic beginnings and endings, and distinguishing features of the modes. The actual airs themselves must be acquired by word of mouth.

Some modes are very simple, others most complicated. There are in reality three ways of singing each mode. One may be called the ordinary and usual style. Another is a very short, quick way of singing the same air with most of the figures omitted, but with the general characteristics of endings and beginnings preserved. This is used for simple short ceremonies, and unimportant parts of long services. The third is again the same air sung in a long and elaborate manner abounding in variations and long notes, which is employed for feast-day

hymns, and is very difficult and complicated. For all forms of all modes the measure is the same, two-four time.

The examples shown here have been taken from a collection of melodies in a volume of Holy Week offices lately published, which were written down by me note by note, with a good deal of difficulty, from the singing of an Armenian priest, who had no knowledge whatever of music, as we understand the term, but who possessed a perfect knowledge of the numberless chants of his Church, in all their varied forms. As I have attempted to explain, the Hymnal of the Church is no guide to the airs, and he had no other, excepting his memory.

The first example belongs to the Fourth Mode, and is the first verse of an evening hymn, preceded by its antiphon.

Pages III and IV both belong to the Third Mode, page IV being the ordinary style, and page III a more elaborate example. Page III, on which no translation is given, belongs to a penitential service sung on Palm Sunday Evening. It is sung from behind the curtain of the veiled altar; the words, "Who are these that I should open unto them? For only the innocent may enter here," representing the reply of the angel at the gate of heaven to sinners begging for entrance at the Last Day.

Pages V and VI are a good example of the chromatic Fifth Mode, and consist of the antiphon and first verse of a hymn for Good Friday. Pages VII and VIII show an example of a metrical hymn, the mixed mode of which is difficult to determine.

Pages IX and X present a smooth and melodious example of the Seventh Mode, the principal characteristic of which is a modulation into the dominant, rather a rare feature.

The last example is a somewhat elaborate example of the Fourth Mode, and is particularly sweet and plaintive. Want of space forbids my giving a really elaborate example of the variations of feast-day hymns.

The translation of the whole hymn is given in nearly all the examples, but the music of the first verse or so is sufficient as an example of the style.

AMY APCAR.

Art: 2.—INDO-ARYAN EXPANSION AND THE EARLY RELATIONS OF THE ARYAS WITH THE PRE-ARYANS.

THE Aryan conquest is the first great event of Indian history. Without a clear conception of its nature and character the complex problems of Indian history and ethnology cannot be properly grasped. The colonising and conquering activities of the Indo-Aryans, again, were not confined to India alone. Once settled within her borders, they sent out colonists to Central Asia, Indo-China, the Indian Archipelago, and Ceylon, who carried Hindu civilisation and culture to those distant lands. There is an organic unity between the history of India proper and of these countries, all of which I would collectively designate Greater India for convenience and lucidity. The story of Indo-Aryan expansion is one continuous tale that cannot be studied separately without prejudice to the scientific treatment of the subject. Over and above the consideration of principle, historical materials of a decidedly superior order for the study of the mutual history of India and Greater India preserved in Ceylon, Burma, Siam, Cambodia and Java, which throw a flood of fresh light on our very obscure past, demand the serious attention of all students of Indian history. In this paper I collect a few well-authenticated facts bearing upon the early Indo-Aryan expansion and the relations of the newcomers with the Pre-Aryans from the above standpoint. If these notes stimulate others with better opportunities and abilities to study the question and view it in this light my object will be gained.

In the early dawn of history we find the Aryas settled in the North-West corner of India from the banks of the Kubha or Kabul river to the valley of the Sarasvati, which stream was then a tributary of the Sutlej. Their original immigration into the Indian soil and their crossing of the Indus was clean forgotten. But the tradition of the Rigvedic age still remembered how the invaders penetrated into the Cis Sutlej plain and how the fields and plough-lands were won from the

Dasyus. In a beautiful dialogue in the third Book of the *Rigveda* where Rishi Visvāmitra and the rivers Beas and Sutlej are the dramatis personæ, a very vivid picture is preserved of the Eastward Ho :

(Visvāmitra.) *

"List quickly sisters to the bard who cometh to you from far away
with car and waggon.

Bow lowly down, be easy to be traversed : stay, Rivers, with floods
below our axles (9).

(The Rivers.)

"Yea, we will listen* to thy words, O singer. With wain and car
from far away thou comest.

Low, like a nursing mother, will I bend me, and yield me as a maiden
to the lover (10).

(Visvāmitra)

"Soon as the Bharatas have fared across thee, the warrior band,
urged on and sped by Indra,

Then let your streams flow on in rapid motion. I crave your favour
who deserve our worship (11).*

The 'warrior band' of the Bharatas ultimately settled on the Sarasvati and her tributary, the Drishadvati. Two of their poets sing (III. 23) :

*Both Bharatas, Devasīavas, Devavātā, have strongly rubbed to
life effectual Agni.

O Agni, look thou forth with ample riches : be, everyday, bearer of
food to feed us (2).

"He set thee in the earth's most lovely station, in Ita's place, in
days of fair bright weather.

On man, on Apayā, Agni ! on the rivers Drishadvati, Sarasvati, shine
richly (4). "

The Bharatas had for their neighbours the Purns who also lived on the two grassy banks of the Sarasvati. The latter long cherished the memory of the chief who conquered for them their new home. From the *Rigveda* we come to know at least four generations of the kings of the Purns, Purnkutsa, Trasadasyu, Triksī, Kurusravana. Trasadasyu, or 'the terror of Dasyus', is the hero of the clan. The following verses preserve the legendary account of his birth (IV. 42) :

"Our father then were these, the seven Rishis, what time the son of
Durgaha was captive.

* This and all other extracts from the *Rigveda* are taken from Mr. Griffith's translation (Second Edition).

For her (Purnkutsa's wife) they gained by sacrifice Trasadasyu, a demi-god, like Indra conquering foemen (8).

"The spouse of Purnkutsa gave oblations to you, O Indra-Varuna with homage.

Then into her ye gave King Trasadasyu, the demi-god, the slayer of the foemen (9)."

Tradition ascribed to the 'terror of the Dasyus' the conquest of the home of the Purn clan (IV. 38) :

"From you two (Heaven and Earth) came the gifts in days aforetime which Trasadasyu granted to the Purns.

Ye gave the winner of our fields and plough-lands, and the strong smiter who subdued the Dasyus (1)"

The legend of Trasadasyu brings us face to face with the Dasyus or Dāsas, the pre-Aryans of Northern India, who were the original occupants of the lands won by the Aryas ; and the most important questions that suggest themselves in their connection are, Who were they ? What was the nature of their relations with the invaders ? It is common to suppose that the tribes with whom the Arya invaders came into contact were savages who were either exterminated or enslaved, while a minority only escaped the fate by taking shelter in the hills. This theory originated in the belief prevailing among the historians of the last century that wherever the nations of Aryan speech were opposed by aborigines, slaughter and bondage became the order. The startling archaeological discoveries at Mycenæ and Gnosso have proved its error as far as the Grecian world is concerned. The spade has not yet been extensively employed in unearthing the remains of India's past and Indian archæology has as yet not been able to recover any relic reaching back to the age of the Rigveda. But this ancient literary monument itself contains evidences to show that the common view rests on false premise.

Certain misconceptions regarding the literary character of the Rigvedic hymns lie at the background. On this point I can do no better than reproduce a passage from Professor Macdonell's excellent work, *Sanskrit Literature*, which embody the results of the latest researches by the Sanskritists of Europe "The Rigveda is not," writes the Professor, "a collection of primitive popular poetry, as it was apt to be described at an earlier period of Sanskrit studies. It is a body o

skilfully composed hymns, produced by a sacerdotal class and meant to accompany the Soma oblation and fire sacrifice of melted butter, which were offered according to a ritual by no means so simple as was at one time supposed, though undoubtedly much simpler than the elaborate system of the Brahmana period." The well-known method of imparting education orally, which survives down to our own time was already current among the Rigvedic Aryas. One Rishi, while describing the voice of the frogs, says (VII. 103):

"When one of these repeats the other's language, as he who learns the lesson of the teacher (5)."

Hymn-composing had already come to be regarded as an art. To cite only one among many instances, one poet sings (I. 140):

"May this our perfect prayer be dearer unto thee than an imperfect prayer although it please thee well (11)."

It is not, therefore, at all surprising that the poets of the Rigveda should use highly figurative language and lavishly indulge in personifications and allegories. But what contributes to the literary and poetic beauty of the hymns offers great difficulties to the student who turns to them for gathering historical and ethnological data. The hymns are addressed to the gods with the object of attaining earthly ends through superhuman agencies. Proper names, whether of tribes or individuals, are used ambiguously, and it is often difficult to ascertain whether they refer to human or superhuman beings, or are mere personifications of the phenomena of nature. This is particularly the case with words like *dasyu* and *dāsa*.

"The word *dasa* or its equivalent *dasyu*" writes Professor Macdonell, "is also used to designate atmospheric demons. Primarily signifying the dark aborigines of India contrasted with their fair Aryan conquerors, it frequently rises to mythological rank in the Rigveda as the line between what is historical and what is mythical is not clearly drawn." * The same authority furnishes us with an excellent test for determining where they refer to aboriginal foes of the Aryas. "When Indra's aid is invoked against both Arya and Dasa foes or when he is spoken

* Vedic Mythology, p. 157 (Strassburg, 1897; Bühler Encyclopedia of Indo-Aryan Research, III 1, A.).

of as discriminating between Aryas and Dasyus or Dāsas, terrestrial foes are undoubtedly meant. This is probably also the case when Indra fights against the Dasyus in favour of the Aryās."

First, as to the locality occupied by the Dasyu folk referred to in the Rigveda, the hymns only introduce us to those who lived in the vicinity of regions where the hymns were composed. The climatic conditions of the different parts of the Punjab have enabled scholars to settle this question also. "The Punjab of the present day" says Professor Macdonell, "is a vast arid plain, from which, except in the north-west corner at Rawal Pindi, no mountains are visible, over which no monsoon storms break. Here there are no grand displays of the strife of the elements, but only gentle showers fall during the rainy season, while the phenomena of dawn are far more gorgeous than elsewhere in the north. There is, therefore, some probability in the contention of Professor Hopkins, that only the older hymns such as those to Vasuna and Ushas, were composed in the Punjab itself, while the rest arose in the sacred region near the Sarasvati, South of the modern Ambala, where all the conditions required by the Rigveda are found." * *

In two well-known hymns of the seventh Book which, when read together, give us a somewhat detailed account of a great battle fought on the Ravi between Sudas and the ten kings of the east, and wherein the earthly Dasyus are clearly referred to, the neighbourhood of the Sarasvati is indicated as their home. The first hymn (8) describes the actual military operations in a very obscure way. I reproduce below Mr. Griffith's version of the greater part of it :—

"What though the floods spread widely, Indra made them shallow and easy for Sudas to traverse.

He, worthy of our praises, caused the Simyu, foe of our hymn, to curse the river's fury (5).

"Eager for spoil was Turvasa Purodas, fain to win wealth like the Matsyas urged by hunger.

The Bhrigus and the Druhyus quickly listened ; friend rescued friend mid the two distant peoples (6).

"Together came the Pakthas, the Bhatanas, the Alivas, the Sivas the Vishānins.

* *Sanskrit Literature*, p. 145.

"Yet to the Tritsus came the Arya's comrade, through love of spoil and, heroes' war to lead them (7).

"Fools, in their folly fail to waste her waters, they parted inexhaustible Parushni.

"Lord of the earth, he with his might repressed them : still lay the herd and the affrighted herdsmen (8).

"As to their goal they sped to their destruction : they sought Parushni, e'en the swiftest returned not.

"Indra abandoned, to Sudas the manly, the swift flying foes, unmanly babblers (9).

"They went like Kine unherded from the pasture, each clinging to a friend as chance directed (10).

"The king who scattered one-and-twenty people of both Vaikama tribes through host of glory...(11).

"Thou, thunder-armed, overwhelmest in the waters famed ancient Kavasha and then the Druhyu (12).

"Indra at once with conquering might demolished all their strong places and their seven castles.

The goods of Anu's son he gave to Tritsu. May we in sacrifice conquer scornful Purn (13).

"The Anavas and Druhyus, seeking booty, have slept the sixty-hundred, yea, six thousand.

And six and sixty heroes...(14).

"These Tritsus under Indra's careful guidance came speeding like loosed waters rushing downward.

The foemen measuring exceeding closely, abandoned to Sudas all their provisions...(15).

"The hero's side who drank the dressed oblation, Indra's denier, far over earth he scattered (16).

"Famuna and the Tritsus aided Indra. These he stripped Bheda base of all his treasures.

The Ajas and the Sigsus and the Yakshus brought in to him as tributes heads of horses (19).

The episode referred to seems to me to be, once upon a time four Arya tribes—the Turvasus, the Druhyus, the Purns, and the Anus—with the Simyus and five other allied tribes, most of whom were non-Aryans, marched upon and encamped on the Parushni (Ravi) under the supreme command of Purodās, the king of the Turvasus. The main object of the expedition seems to be to wreak vengeance upon the Tritsus whose pressure originally led them and other Aryan tribes to migrate eastward. The land of the Tritsus lay on the opposite bank of the river. Failing to discover any shallow where they could ford the river, the ten

Kings resolved upon deflecting the current of the Parushni by digging a canal up the stream, which proved abortive. In the meantime the Tritsus,* who knew the river-bed better, crossed over and surprised the invaders, but were unable to dislodge them from the positions they had occupied. After hard fighting the invaders retreated, abandoning their supplies to the enemy. Out of their number six thousand and sixty-two lay dead on the field and many others were drowned in the Parushni. Sudas, the victorious chief of the Tritsus, then set out to plunder the towns and villages of the ten vanquished tribes, in course of which expedition he advanced as the Yumna where non-Aryan clans like the Ajas, the Sigrus, and the Yakshus tendered their submission and brought in tribute. Hymn 83, of the same book makes the composite character of the allied forces clearer.

" Looking to you and your alliance, O ye men, armed with broad axes
they went forward, fain for spoil.

Ye smote and slew his Dāsa and his Aryan enemies, and helped Sudas
with favour, Indra-Vamna '1."

These verses, besides indicating the localities where the Rigvedic Dasyus dwelt, clearly shows that the Arya colonists in the valley of the Sarasvatī at the time of the war were limited in numbers, and that they often made common cause with their non-Aryan neighbours. The relations of the invaders with the aborigines seem to have passed through three distinct stages of conflict, rapprochement and amalgamation.

The Arya invaders, as a matter of course, began by expelling a certain portion of the non-Aryan population from their homes and ploughlands. As the former were not numerous, their encroachments disturbed the pre-Aryan world only to a limited extent. Yet the relations of the two races must have been characterised by mutual suspicion and hatred at the outset. The pride of superior culture on the one hand, and the sense of wrong on the other, kept them apart. While the Dasyu meditated vengeance, the Arya tried completely to subjugate him. At this stage the Rishis sing :—

" Thou, thou alone, hast tamed the Dasyus ; singly thou hast subdued
the people for the Arya (VI. 18-3)."

" Strengthen therewith the Arya's hate and Dasa's, and let the arms of
Nahushas be mighty (VI. 22. 10)."

" Indra the terrible, tamer of every man, as Arya leads away the Dasa at his will (V. 34. 6)."

Some time after both sides must have found that racial animosities did not pay. The Aryan priests, always intent upon *dakshina* or sacrificial gift, went among the aborigines to preach the gospel of sacrificial ritualism. One Rishi, Vāsa Asvya, sings :

"A hundred (oxen) has the sage received, Dāsa Balbutha's and Taruksha's gifts.

These are thy people (VIII. 46. 32)".

The verse is addressed to Vayu. One Rishi of the house of Atri thus curses his close-fisted non-Aryan clients :

"Agni, may Atri overcome the Dasyus who bestow no gifts, subdue the man who give no food (V. 7-10)".

Arya chieftains, often engaged in internecine wars, sought the alliance of the non-Aryan chiefs, as we have seen in the case of the enemies of the Tritsus. The organisation of that coalition is only typical of what was happening every now and again on, perhaps, a smaller scale. Scholars assign a comparatively later age to Valakhilya hymns and the hymns of the tenth book on linguistic and other grounds. The following verses found in these parts of the Rigveda mark a decided improvement in the mutual relation of the two races.

"Good Lord of wealth is he to whom all Aryas, Dasas here belong (Val. 3-9)".

"All treasures have thou (Agni) won, of plains and mountains, and quelled the Dasa's and the Aryas, hatred (X. 69-6)."

The above extracts bring into relief the real nature of the Aryan conquest of the valleys of the Sutlej and the Sarasvati. It was rather a settlement of a few Arya clans in the midst of aborigines than conquest in the proper sense of the term. What enabled the new-comers to assert their supremacy over the mass of neighbouring pre-Aryans was their speech and their religion and not their bows and arrows alone. What position, then did the latter occupy beside the former when the racial conflict had ceased? Those who were captured in war became slaves. But did all the slaves that the Aryas owned come from the pre-Aryan race? In a very old *yajus* text a Rishi prays : "O Agni of unweakened strength protect me from

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bondage." * It shows that enslaving of even a priest under certain circumstances was not uncommon in the Vedic age. Admitting that this text belongs to a later age than the hymns of the Rigveda, such an admission only adds to the force of the argument, for in a later age greater sanctity came to be attached to the person of the priest, and he had, therefore, less chance of being enslaved by the neighbouring powers. But the Rigvedic texts already cited prove beyond a shade of doubt that Arya chiefs and priests often accepted the alliance of their aboriginal neighbours on other terms than slavery.

Our next question is, whether there was fusion of blood on any large scale in that remote antiquity. Two causes, physical repulsion due to marked difference in colour and other physical features, and rigid caste rules usually arrest inter-marriage between different races. We should, therefore, inquire whether there was any such marked difference in the features of the two races as known from the Rigveda, and whether the social institutions of the Aryans offered any obstacle to racial fusion.

The common view that the Aryan invaders were white men is based upon a doubtful interpretation of a Vedic text. I reproduce Mr. Griffith's version of it :

"He (Indra), much invoked, hath slain Dasyus and Simyus, after his wont, and laid them low with arrows.

The mighty thunderer with his fair-complexioned friends won the land, the sunlight, and the waters (I-100-18)."

According to Sayana, the commentator, 'white-complexioned friends' refer to the Maruts or storm gods, and the enumeration of sunlight with "land" and "waters" seems to indicate that both the parties to the conflict alluded to by the poet belong to the atmospheric world. But to make an idea of the complexion of the average Indo-Aryan of the Rigvedic age we have better materials than an isolated expression in an obscure verse. The original migration of the Aryas in the Indus Valley, as we have already seen, is beyond our vision. Their legends and traditions had not the faintest recollection of that event. This circumstance leads us to the inference that the immigrants were fully acclimatised when the earliest

* Vajasaneya Sainhita, II, 20.

hymns of the Rigveda were composed on the banks of the Indus; and that the complexion of an average Arya of that period did not much differ from that of a modern Pathan or a Sikh of the Peshawar district in the Frontier Province. The physical repulsion owing to difference in colour on the part of the new-comer, therefore, could not have been as keen as that of a European towards a Negro.

Our evidences, on the other hand, relating to the colour and features of the Dasyus, are not conclusive. They are supposed to be a dark and flat-nosed race. The clearest reference to the dark skin of the foes of the Aryas is found in the following text :

"Indra in battles help his Aryan worshipper, he who hath hundred helps at hand in every fray, in frays that win the right of heaven.

Plagueing the lawless he gave up to Man's seed the dusky skin ;
Blazing, 'twere, he burns each covetous man away, he burns the tyrannous away (I. 130,8)"

The translation of the second line according to Sayana should be, "(Indra) subdued the riteless for the benefit of mankind, and flaying the dark skin of a demon called Krishna destroyed him." Here the scholiast's allusion to a particular demon seems to be forced, and the passage may well be taken to refer to the dark skin of certain riteless or lawless terrestrial foes. But as to the 'flat-nose' of the pre-Aryan our evidence is very doubtful. It is based upon the explanation of the Sanskrit compound *anasa* occurring in the following verse :—

"One car-wheel of the sun thou rolledst forward, and one thou settest free to move for Kutsa.

Thou slewest *noseless* Dasyus with thy weapon, and in their home o'erthrewest hostile speakers (V. 29.10)."

The translator, Mr. Griffith, writes in his note to this passage,—"*Noseless* : that is the flat-nosed barbarians, *a-nasah* ; or the word may be, as Sayana explains it *an-asah*, i.e., mouthless, voiceless, unintelligibly speaking." This latter explanation fits in with the context better.

But even if we admit that the average Arya was as white as the European and the average Dasyu as dusky and flat-nosed as the Negro, that does not necessarily preclude the

possibility of intermarriage between the two races. Physical repulsion did not arrest union between some of the proudest races of Europe and the Negroes. "South European races" observed Mr. Bryce in his *Romanes Lecture* (1902), "though disinclined to such unions, do not wholly eschew them. In the ancient world we hear little of any repugnance in the Roman Empire to the dark-skinned Africans, for the contemptuous references to Egyptians seem to spring from dislike rather to the character and religion than to the colour of that singular people. In modern times the Spanish settlers in the Antilles and South America, and the Portuguese in Brazil, as well as on the East and West coasts of Africa, have formed many unions with Negro women, as the Spaniards have done with the Malayan Tagals in the Philippines, and the Portuguese with the Hindus in Malabar. There is to-day a decided Negro strain in many of the whites of Cuba, and a still stronger one in the whites of Brazil."

The social code of the Aryas was plastic enough to allow of mixed marriages in that remote past. If the traditions and legends that gathered round the Vedic Rishis and kings in later ages have any foundation in fact, they prove that the rules of connubium were very elastic and irregular in the Vedic age. Gautama, the reputed author of the earliest of *Dharmasutras* or aphorisms on sacred law now extant, who legalises hypergamy between different castes, recognises the voluntary union of a maiden with her lover, the forcible abduction of a maiden, and even seduction, as lawful forms of marriages for the non-Brahman castes, and provides for the filiation of illegitimate offsprings and the offsprings of remarried women, remarks in the beginning of his work, "Transgression of the law and violence are observed (in the case) of (those) great (men); but both are without force (as precedents) on account of the weakness of the men of later ages (1.3)."

Negative evidences of the amalgamation of races are not wanting in the *Rigveda* itself. The *Purusha* hymn, wherein for the first time the origin of the four primitive castes is described, indirectly testifies that the racial boundary between the Aryas and the *Dasyus* was totally obliterated before the four social grades implied in the fourfold castes came to be clearly

differentiated. I shall reproduce all the verses of that well-known hymn (X.90) that relate to the creation of terrestrial beings :

"He formed the creatures of air and animals both wild and tame.

...
 From it were horses born, from it all cattle with two rows of teeth :
 From it were generated kine, from it the goats and sheep were born.
 When they divided the Purusha how many portions did they make?
 What do they call his mouth, his arms? What do they call his thighs
 and feet?

The Brahman was his mouth, of both his arms was the Rajanya
 made.

His thighs became the Vaisya, from his feet the Sudra was produced."

Where were the *Dasyus* or *Dasas* when this hymn was composed? Had they had any separate existence as earthly creatures, they would have found a separate mention in this inventory of created beings. To explain this omission we are bound to assume that the primitive *Dasyus* in the midst of whom the Arya immigrants had originally settled had been completely absorbed in the newly organised Hindu community, and that the poet was ignorant of the existence of other non-Hindu tribes who lived in remote countries. There is no clear evidence to prove that the Sudra caste was organised solely with non-Aryan elements. In primitive days the status of a Sudra was no better than that of a slave. Had the descendants of those *Dasyu* Kings who followed Turvasu Purodas against the Tritsus, or of men like Dasa Balbutha and Taruksha been also reduced to the same condition? It is more than one can believe.

The relations of the Aryan invaders to the pre-Aryans varied in various countries. The above stages were successively passed through only in those places where the former migrated in considerable numbers and with their women. In other places where the immigrants formed only a handful of settlers, amalgamation with the original inhabitants began earlier. To avoid repetition, I shall not dwell upon the mutual relations of the races any more in detail, but confine myself, in the sequel, to describing the course of expansion only.

The Rigveda itself carries us to the eastern limits of modern Behar. In a hymn (30) of the fourth Book, where the

Vipas or Beas is also referred to, we meet with the following verses :

"So sapient Indra, lord of might, brought Turvasa and Yadu, those
Who feared the flood, in safety o'er (17).

"Arna and Chitrasatha, both Aryas, thou Indra slewest swift,
On yonder side of Sarayu (18)."

The incident referred to is probably an expedition that the Yadus and the Turvasus conjointly led to the other side of the Sarayu against the Aryan chieftains named, both of whom fell fighting. But is this Sarayu to be identified with the Sarayu of Oudh? The following text leaves no doubt about the point. A poet belonging to the famous clan of Visvamitra sings (III. 53) :

"The Visvamitras have sung forth this prayer to Indra.

Thunder-armed :

So let him make us prosperous (13).

"Among the Kikatas what do they cattle? They pour no milky
draught, they heat no caldron.

Bring thou to us the wealth of Pramaganda; give up to us,
O Maghavan, the low-born (14)."

Kikata is equivalent to Magadha, and whether the people of Magadha or Bihar of the Rigvedic age were non-Aryans or Aryans who did not follow the Vedic rites, the reference is clear enough to show that the poet and his contemporaries knew the people intimately.

The well-known legend of Videgha Māthava in the Sātapatha Brāhmana (I. 4. 1. 10-19) is the only traditional evidence that we possess of the eastward progress of the Vedic culture. I shall reproduce Professor Julius Eggeling's translation :

"Now Mathava, the (king of) Videgha, carried Agni Vaisvānara in his mouth. The Rishi Gotama Rahugana was his family priest. When addressed (by the latter), he made no answer to him, fearing lest Agni might fall from his mouth.

"He (the priest) began to invoke the latter with verses of the Rigveda.....

"Still he did not answer. (The priest continued) 'Thee, O butter-sprinkled one, we invoke! (Rigveda V. 26. 2);' so much he uttered, when at the very mentioning of butter, Agni Vaisvānara flashed forth from the (king's) mouth: he was unable to hold him back: he issued from his mouth and fell down on this earth.

"Māthava, the Videgha, was at that time on the (river) Sarasvati. He (Agni) thence went burning along the earth towards the east; and Gotama Rāhugana and the Videgha Māthava followed after him as he was burning along. He burnt over (dried up) all these rivers. Now that (river) which is called 'Sadānira,' flows from the northern (Himālayan) mountain: that one he did not burn over. The one the Brahmans did not cross in former times, thinking, 'it had not been burnt over by Agni Vaisvānara.'

"Now-a-days, however, there are many Brahmans to the east of it. At that time it (the land of the Sadānira) was very uncultivated, very marshy, because it had not been tasted by Agni Vaisvānara.

"Now-a-days, however, it is very cultivated, for the Brahmans have caused (Agni) to taste it through sacrifices. Even in late summer that (river), as it were, rages along: so cold is it, not having been burnt over by Agni Vaisvānara.

"Māthava, the Videgha then said (to Agni), 'Where am I to abide?' 'To the east of this (river) be thy abode!' said he. Even now this (river) forms the boundary of the Kośalas and Vidahas; for these are the Māthavas (or descendants of Māthava)."

Twenty hymns of the first book of the Rigveda are attributed to Gotama, the Rāhugana, or son of Rahugana. In the context of some of these hymns the poet calls himself Gotama, and in one of them (785) invokes Agni in the name of the Rahuganas. The name of Videgha Māthava's priest, therefore, carries us back to the early Rigvedic age, and the reference to the *Āvikatas* in a hymn of the third book leads us to infer that the legend of Videgha is perhaps based upon a genuine tradition relating to the early migration of the Videgha clan to a region which came to be known as Videha after the name of the clan.

The Rigveda carries us so far. The other Vedas carry us no further than Lower Bengal; and here also not by introducing us to human dwellers, but to the tiger. The prose treatises attached to the Vedas, known as Brāhmanas, do not add anything more to our geographical knowledge. But I believe too much is made of the reticence of these works. When the non-reference of any of these works to any Aryan colonies outside the Rigvedic limits is construed as implying their non-existence, the peculiar characteristics of the men of the age and of the materials that they have left for the reconstruction of their history are not always born in men. The Vedic civilisation was essentially materialistic, and the men

of the age were very active and optimistic. The Rishis are evidently anxious for the happiness of this life, and it is only rarely that they refer to death and contemplate the condition of life after death. But their only literary productions that have come down to us are hymns and sermons; for the Vedic Samhitās are collections of hymns, and the Brāhmanas, collections of sermons with hymns as texts, expounding the cult of sacrificial ritualism. Civilized nations of all ages have handed down such compositions to posterity. To realise with what great caution they should be used for secular history, we need only turn our eyes to the case of other nations whose historical compositions are based mainly upon independent sources and imagine what shape would those works assume if they were based upon hymns and sermons only. The reason why clear traditional evidence of the eastward or southward migrations of the Indo-Aryans has not been preserved in the Vedic literature is that the immigrants did not sweep down in conquering hordes with pomp and noise that might appeal to the imagination of poets and priests. These later migrations may be better described as infiltrations of Aryan elements. Pressed by their stronger neighbours in their north-western homes, successive bands of immigrants silently crept in and settled among older inhabitants who lived at a safe distance from their oppressors. But wherever they went and in however small numbers, they Aryanised all who came into contact with them.

That the silence of the *Brahmanas* is not a conclusive evidence of the non-existence of any Aryan tribe or colony is clearly seen in connection with some of the important Rigvedic tribes. The powerful nation of the Tritsus is nowhere mentioned in the whole range of post-Vedic literature, while the Yadus, the Turvasus, the Druhyus, and the Anus find no mention in the *Brahmanas*. Where were they? Had they come to be known under different names, or were they merged in other tribes? The change of name in one instance, that of the Krivis assuming the name of the Pāñchālas is noticed in the *Satapatha Brahmana*; and evidences of the Purns' merging with the Bharatas and of their transformation into the Kurus are not wanting. The absence of any similar

evidence with regard to the Yadus and three other tribes indicates that no such change had been experienced by them within the knowledge of the authors of the Brahmanas. Had they then all perished in inter-tribal wars? The *Mahābhārata* and the *Purānas* preserve legends about the Yadus, the Yurvasus, the Druhyus, and the Anus which render any such assumption absurd. According to these works Yayāti, a pre-Vedic king, had five sons who bore the eponyms of the five famous Vedic tribes comprising the aforementioned four and the Purns. Through the curse of his father-in-law, Usanas, Yayāti became old and infirm before his time. Usanas had also given him the power of exchanging his infirmity with another man's youth. To transfer his infirmity and regain youth Yayāti successively applied to his four elder sons, Yadu, Druhyu, Purvasu, and Anu, all of whom refused to part with their youth. The youngest, Purn, consented, and was finally placed on the ancestral throne by his grateful father. Regarding the progeny of the disinherited sons of Yayāti the *Mahābhārata* * says:—"The Yādavas are descended from Yadu, the Yavanas from Turvasu, the Bhojas from Druhyu, and the Mlechchhas from Anu." The epic makes Gujarat the home of the Yādavas. According to Vishnu Purāna King Yayāti thus divided his kingdom among his sons: "To Turvasu he consigned the south-east districts of his kingdom; the west to Druhyu; the south to Yadu; and the north to Anu; to govern as viceroys under their younger brother Purn, whom he appointed supreme monarch of the earth." This account is repeated in many other Puranās with slight variations. They also contain short notices of the descendants of Turvasu, Druhyu, and Anu. Bali was thirteenth in descent from Anu. "Of his wife five sons, Anga, Banga, Kalinga, Suhma, and Pundra, were begotten by Dirghatamas; and their descendants, and the five countries they inhabited, were known by the same name." We may take these legends at their worth. But anyhow they deserve greater attention than they have hitherto received.

But when from the mother country we turn our eyes to trans-frontier Indo-Aryan colonies we are encouraged in our

* Book I, Section 85.

researches by a great collection of materials of a superior order. Of these only the chronicles of Ceylon have as yet been used by writers on Indian history. One of the main reasons that have led scholars interested in Indian history to practically neglect this field is the difficulty of finding a connecting link between pre-Buddhist or pre-Asokian India, that is to say India before Asoka made Buddhism a state religion and sent out missionaries to preach the Law, and Hinduised communities in south-eastern Asia. Megasthenes has left on record that "the Indians stand almost alone among the nations in never having migrated from their own country." * I shall, therefore, preface my notes on Indo-Aryan expansion beyond the frontiers of the great peninsula with a few suggestions relating to that missing link.

First among the conditions that favoured the settlement of the Brahmanist Indians among non-Hindu races in the remote past was that the former did not hold the latter in contempt, but, on the contrary, regarded them as their own kinsmen. The earliest evidence of this view occurs in connection with a remarkable episode narrated in the seventh Book of the Aitareya Brāhmaṇa. Sunahsepha, a Brāhmaṇ boy of the Augirasa clan, was intended to be killed in a sacrifice where Rishi Visvāmītra was one of the officiating priests. The boy, when tied to the sacrificial post, addressed some hymns to the gods and thereby induced them to grant his life. Visvāmītra then adopted Sunahsepha as his own son and invested him with all the rights of primogeniture. Visvāmītra had hundred other own begotten sons. Among these the fifty elder ones were dissatisfied with their father on account of his partiality for Sunahsepha. "Against them he pronounced (this curse) 'let your progeny possess the furthest ends (of the country).' These numerous Dasyus—the Audhras, Pundras, Sabaras, Pulindas, Mutibas and many other frontier tribes, are the descendants of Visvāmītra." Longer lists of non-Brahmanist races are given in the *Mahābhārata* (Book VIII, sections 33 and 35) and *Manusmṛiti* (X. 42-43) wherein they are classified

* Quoted by Pliny, M'Crindle.

as Kshatriyas who "have become Sūdras from having no communication with the Brahmins."

The ancient Brāhmanists again were not lacking in missionary spirit. The Indian Buddhists received it as a heritage from the Brāhmins. In the Santi Paryan of the *Mahābhārata* (section 65) we come across the following remarkable dialogue :

Mandhatri asks : " The Yavanas, Kirātas, Gāndhāras, Chinas, Sābaras, Varvaras, Sākas, Tushāras. Kankas, Pahlavas, Audhras, Madras, Paundras, Pulindas, Ramathas, Kāmhojas, men sprung from Brāhmins, and from Kshatriyas, persons of the Vaisya and Sudra castes—how shall all these people of different countries practice duty, and what rules shall Kings like me prescribe for those who are living as Dasyus ? Instruct me on these points for thou art the friend of our Kshatriya race. "

Indra answers : " All the Dasyus should obey their parents, their spiritual directors, persons practicing the rules of the four orders and Kings. It is also their duties to perform the ceremonies ordained in the Vedās. They should sacrifice to the manes, construct wells, buildings for the distribution of water, and resting places for travellers, and should on proper occasion bestow gifts on Brahmins. They should practice innocence veracity, meekness, purity and in-offensiveness ; should maintain their wives and families ; and make just division of property. Gifts should be distributed at all sacrifices by those who desire to prosper. All the Dasyus should offer costly *Paka* oblations Such duties as these, which have been ordained of old, ought to be preserved by all people. " *

Indra's speech is inspired by a genuine enthusiasm for Hinduising and civilising the barbarians. His interlocutor Māndhatri's name occurs frequently in the Rigveda. But the inclusion of Yavanas and Pahlavas, who are usually identified with Bactrian Greeks and Parthians respectively, in the list would to many indicate that this passage could not have been written before the third century B. C. The identification of Pahlavas or Pallavas with the Parthians is not beyond doubt. The word *Yavanas* is supposed to have been derived from the Greek word *Iavōnes* or Ionians. But, I believe, there is no clear evidence to show that this word travelled into India for the first time with the Macedonians. The Macedonians did not call themselves Ionians. Herodotus mentions India as one of the Satrapies of the Persian empire. The most trustworthy point

* Muir's translation, *Sanskrit Texts*, Vol. I.

in Herodotus' account of India is his reference to the voyage of Seylax of Caryanda, a fellow-countryman of the Father of History, down the Indus. The Indians might have heard of the Ionians from Seylax and other Greek officials of the Persian king as well. The fame of the Ionians may have reached India even earlier. But whenever the Hindus may have come to know the Greek derivative of *Yavana*, the Brahmins of the Punjab, as we learn from the historians of Alexander the Great, were not in the least disposed to Hinduise the Greeks when Alexander conquered that province. Alexander had invited two Brahmins, Mandanis and Katanos, to pay a visit to him. The latter accepted the invitation and was induced to accompany the conqueror when he left India. Strabo writes, "He (Katanos) was ruled by passions and became a slave to the table of Alexander. He is on this account condemned by the Indians, but Mandanis is praised, because when the messengers from Alexander invited him to go to the son of Zeus with the promise of gifts if he complied, and threats of punishment if he refused, he did not go." According to other classical authors the Brahmins of Taxila openly abused Katanos before Alexander the Great.

The missionary zeal of the ancient Hindus was backed by a healthy spirit of commercial enterprise and even adventure. The most daring feat of navigation ever undertaken by the ancients is attributed to a body of Indian traders. "The same Nepos (Cornelius Nepos)," writes Pliny, "when speaking of the Northern circumnavigation, related that to Q. Metellus, the colleague of Afranius in the consulship, but then a proconsul in Gaul, a present was given by the king of the Sævi consisting of some Indians who, sailing from India for the purpose of commerce, had been driven by storms into Germany." This incident does not carry us further back than the first century B. C. But navigators who perform such feats do not spring up all of a sudden. The spirit of nautical enterprise must have been moving the Hindu world for centuries before these ill-fated traders undertook "northern circumnavigation" and were overtaken by storms near the German coast.

Naturally enough this spirit of adventure would be more manifest in the frontier provinces and provinces lying on the

sea coast than in the interior, and, therefore, caste rules in the former would, as a matter of course, continue plastic and accommodating much longer than in the latter region. Ancient works on sacred laws of the Hindus bear unanimous testimony to the latter fact by holding up to imitation the usages obtaining among the inhabitants of *Madhya-desa* or Middle country extending from the Umbala districts in the Punjab to Allahabad in the United Provinces. In an authentic portion of a very ancient code, Bandhayana's *Dharmasutra* (1.2), we find the following classification of the outlying provinces :—

“The inhabitants of Avanti, of Anga, of Magadha, of Surashtra, of the Dekhan, of Upavrit, of Sind, and the Sanviras are of mixed origin (13).

“He who has visited the (countries of the) Arathas, Karaskaras, Pundras, Sanviras, Vangas, Kalingas, (or) Praunnas shall offer a Punastoma or a Sarvapristha ishti (14).”

“This and the following two Suetras,” writes Professor Bühler in his note to Sutra 13, “are intended to show that the customs prevailing in the countries named have no authority and must not be followed.” Behar, Malwa, the Maratha country, Kathiwar, and Sind fall under the first, and Bengal proper, the northern districts of the Madras Presidency, the coast of Surat, and the Punjab proper fall under the second group of Bandhayana. The provinces of the second group were most favourably situated to send out colonists and adventurers.

The early traditions of Greater India fully confirm what Bandhayana's classification of the Indian provinces leads us to expect.

Of the countries beyond India proper that were conquered and colonised by the Hindus, Upper Burma was perhaps the earliest to receive her conquerors. The *Maha Yazawin* or the Royal chronicle of Burma preserves the tradition of two different invasions. Abhi Raja, a Sakya prince, driven from his home by a king of Kosala whose anger the Sakyas had provoked by their refusal to give a daughter in marriage, led the first invasion and carved out a kingdom in the Upper Valley of the Irrawadi with Tagaung as capital. Thirty-two princes ruled at Tagaung after Abhi Raja until the last of them was deposed by a band of invaders from the east. Another

Sakya prince, Daza Yaza, is said to have entered Upper Burma at this crisis, which happened to fall during the last years of the life of Gautama Buddha, driven, like Abhi Raja, from the Sakya land by another king of Kosala. The most incredible part of the narrative is that "seventeen generations of the rulers of the second dynasty are made to reign within the short space of sixty years. Colonel Burney gives a more reliable version of the tradition from a different source. He writes :—

"It is remarkable, that some of the names in the two lists of kings of Tagaung correspond. The Burmese chronicles give no details of the reign of any of these kings, excepting of the first two in each list, and of the last in the second. One old work, *Zabudipa kwon-gya*, takes notice only of the second list of sovereigns, and states that Daza-yaza retired from Central India, and came to Tagaung, about three hundred years before the appearance of Gaudama. As the last mentioned, or seventeenth king, Maha Yaza, is also stated to have ascended twenty years after Gaudama's death, this would allow a duration of about 18 or 20 years to the reign of each of the kings preceding."

A Hindu invasion of Burma in the tenth or ninth century B. C. is not inconceivable. But for the Sakyas of the legend we should substitute adventurers from Assam or Bengal. The fabrication of Sakya descent of the early conquerors is probably due to the solicitude of the later kings of Burma, all of whom traced their descent from Abhi Raja and Daza Yaza, to establish their kinship with the great founder of Buddhism.

Independent evidences of Indo-Aryan immigration into Burma before the introduction of Buddhism are not wanting. The language itself bears witness to it. "Sanskrit words had entered the language before this (i.e. the introduction of Pali books) without any connection with Buddhism. The names for the days of the week are derived from a Sanskrit source, though distorted at times beyond recognition. . . . So, too, the signs of the zodiac such as priecha Karakat, prissa, more nearly resemble Sanskrit.†" That the Burmans were Brahmanists

* Journal of the Asiatic Society of Bengal, Vol. V., p. 164.

† Mr. H. L. St. Barbe in the J. A. S. B., Vol. XLVIII., Part I, p. 524.

before they turned Buddhists is borne out by the survival among them of "the strong desire to have obsequies performed by sorus or daughters,"* obviously a relic of Brahmanic funeral sacrifice. The Burmese tradition of a Manu as the author of the *Dhammathāt* or chief legal compilation, is, I believe, not without significance. According to the Burmans, the Burmese Manu, of course, is a native of Burma, who, from being a cowherd when a child, rose to the rank of a minister of King Maha Thambawa (B. C. 483), the founder of the Prome dynasty. There is very little resemblance between the laws of the Indian Manu and the *Dhammathat* of Burma. But the name of the mythical first lawgiver of India must have been introduced by the Hindu immigrants, and the transfer of Manu's birth-place to Burma is in keeping with the general usage of Indo-China and the Archipelago.

Lower Burma was conquered and colonised by adventurers from Kalinga. The older inhabitants of the lower valley of Irrawady were mere savages. "The first settlement from India among the savage tribes is, in Talaing tradition, said to have been made by two sons of King Titha or Tissa, who reigned in the country of Karanaka and the city of Thubinna. These sons of the king come to dwell as hermits in savage land; and according to a wild legend, as if to connect the aborigines with the later ruling race, bring up a child born of a dragon on the sea-shore, who, when grown up, builds the city of Thaton (Suvana Bhumi) and reigns as Siha Raja.†" This Siha Raja or Fhiha Raja is said to have died in 543 B. C., the year in which the Buddha attained *nirvana*.

The colonising genius of the Hindus achieved its greatest success in further east where the first immigrants very probably reached by sea. Indo-China is to the Indo-Aryans what the North American colonies are to the Anglo-Saxons of the mother-country. As the heart of every Englishman beats faster when New York or New England meets his eyes, the recognition of (New) Kamboja in Cambodiz, (New) Campa in Annam, and (New) Ayodhya in Siam's former capital Aynthia, ought to rouse a similar sentiment in every Hindu. The

* Mr. John Nisbet's "*Burma under British Rule—and Before*," Vol. II., p. 313.

† Sir Arthur Phayre's "*History of Burma*" (Trübner's O. S.) p. 27-28.

name Siam itself is a corruption of Sanskrit *Syāmāraśtra*, Ptolemy's *Samaradē*.^{*} According to Siamese tradition Brahman colonists had already settled themselves in the interior of the country before Gautama Buddha visited the land. An ancient Chinese historical work, *Ma Tuan-lin*, preserves a very curious tradition relating to the establishment of a later Brahman dynasty in Cambodia that may serve as a fine specimen of the old Hindu method of subjugating barbarians :

" Kanudinya, a Brahman from India, having been notified by an oracle that he was called to reign upon *Fu-nan* (Kamboja), proceeded south (from Eastern India) until he reached the country of *Pau-Pau*, whither a deputation from the people of *Fu-nan* came to meet him and proclaimed him King. This occurred in about A.D. 420-450."[†]

It was here, in Indo-China, that the Hindus erected the most stupendous monuments of their political and architectural genius. It is doubtful whether they ever succeeded in rearing up within the confines of India herself an empire so mighty and whose greatness was maintained with unabated vigour for so many centuries as the Empire of Cambodia. I reproduce the brief but vivid description of Angkor Wat, the greatest architectural memorial of the Cambodians, by the latest English writer on Siam :

"The comparatively few European travellers who have visited this temple all unite in declaring it the most colossally stupendous as well as one of the most architecturally beautiful structures they have ever beheld, so that while it rivals or eclipses the Egyptian pyramids in one respect, it hardly falls short of the highest Hellenic standard as regards artistic detail in the other. The huge building, which is between two and three miles in circumference, contains a multitude of courts, colonnades, and chambers. There are twelve superb staircases, the four in the middle having forty to fifty steps, each step a single slab, and over five thousand columns, while everywhere the stones are fitted together in a manner so perfect that the joinings are not easy to find. The walls and portals are covered with sculptures, the exterior of the temple being ornamented

^{*} Major G. E. Grini, "*Siam and Shan*" (*Asiatic Quarterly*) 1898, January-April page 148.

[†] Quoted by Grini, A.Q. 1902, January-April, page 133.

with bas reliefs of scenes from Ramayana, the great Sanskrit epic poem, with vast processions of warriors, horses and chariots, and animals of all sorts, both real and mythical. Augkor Wat was certainly commenced as a Brahmanic temple, but before its completion Buddhism had become the religion of the land, and so it is that we find here, as in the temple of *Borobaddor* in Java, artistic representations of the duties of both the religions.*

The grandeur and beauty of *Borobaddor*, to which no higher praise can be given than that it is the Augkor Wat of the Archipelago, attract us thither. Sumatra and Java probably received their Hindu invaders in the same epoch in which Indo-China was conquered. In ancient days both these islands were known by the common name of Java.† A Sanskrit inscription of Pager-Ruying, in Menang Karban in Sumatra, records :

"The Prince Adityadharma is the Deva of the First Java land (*prathama Java-bhū*). May he be great ! Written in the year of Saka, 578 (A. D. 656). May it be great !" ‡

The earliest reference to Java is found in a passage of the *Ramayan* first brought to notice by Professor Keru. "Search carefully, *Javadvipa*" runs the passage, "adorned by seven kingdoms, the gold and silver island, rich in mines of gold. Beyond *Javadvipa* is the mountain called Sisiga, whose top touches the sky, and which is visited by gods and demons iv. xl. 30)."

There is great difference of opinion between the Sanskritists and the Pali scholars relating to the age of the epic of Valmiki, the former holding it to be a pre-Buddhist work, and the latter post-Buddhist. But whatever the age of Ramayana, the extract shows that the existence of an island called Java, a name which was given to it by colonists of Indo-Aryan speech was well known in Oudh at the time of its composition,

* Mr. J. G. D. Campbell's "*Siam in the XIXth Century*," p. 66-67.

† For many of the references relating to Java and other countries I am indebted to the kindness of Mr J. Macfarlane, the erudite Librarian of the Imperial Library, Calcutta. Though out of place here, I cannot help giving expression to my feeling of gratitude for the great boon that our illustrious Viceroy has conferred upon the Calcutta public, and through them upon the Indian public, by founding the Imperial Library.

‡ Quoted in Yule and Burnell's "*Hobson Jobson*," .

and therefore the island must have been colonised a considerable period before. If we compare Valmiki's description of Ranka, to whom or to whose later editors and interpolators any other name of Ceylon was unknown, with that of Java, it becomes clear that the poet knew the latter island better. His description substantially agreed with what was known relating to Java in the West as recorded by the geographer Ptolemy.

"*Jabadin*, which means the Island of Barley, most fruitful the island is said to be, and also to produce much gold ; also the metropolis is said to have the name *Argyrē* (Silver), and to stand at the western end of the island."

So strong was the Brahmanic element in ancient Java that Buddhism had made very little impression upon the islanders down to the beginning of the fifth century A. D. Fā-Hien (A. D. 414) writes ;

"After proceeding in this way for rather more than ninety days, they arrived at a country called Java-dvīpa, where various forms of error and Brahmanism are flourishing, while Buddhism in it is not worth speaking of."*

The chronicles of Ceylon preserve a fairly reliable dated account of the first colonisation of that island by the Indo-Aryans. Prince Vijaya, a scion of the ruling house of Banga or Bengal, landed in the island in B. C. 543 with 700 followers, at a spot to which he gave the name of *Tamraparni*. The main outline of this tradition has found acceptance among the students of Ceylonese history since the days of Turnour, the discoverer and translator of *Mahavanisa*. But in a recent work, "*Buddhist India*," Professor Rhys Davids, the greatest living authority on the sacred literature of Ceylon, has thrown grave doubts on the most essential points of the tradition. The Buddhist canonical works give a stock list of sixteen great countries. Bengal and Ceylon find no mention in this list. Commenting on this omission Professor Rhys Davids writes :

"Another point on which this geographical evidence throws light is the date of the colonisation of Ceylon. That cannot have taken place in any considerable degree before the Nikayas were composed. We know it had become a well established fact at the time of Asoka. It must have happened,

* James Legge's Translation.

therefore, between these two dates ; and no doubt nearer to the earlier of the two. The Ceylon chronicles, therefore, in dating the first colony in the very year of Buddha's death (a wrong synchronism which is the cause of much confusion in their earlier chronology) must be in error."

The Nikayas profess to preserve the dialogues of the Buddha in the year of whose Nirvana, Vijaya landed in Ceylon. After the demise of the great teacher when his disciples first met in council and chanted his dialogues to fix them in memory, the colonists had perhaps made very little progress in bringing the aborigines of the island under subjection. The rumours of their conquest must have taken a long time to reach the early centres of Buddhism. The later editors of the Nikayas, presumably very pious monks, were not the men to care much about any geographical novelty brought to their notice ; and that the colonisation did not take place 'in any considerable degree before the Nikayas were composed' is quite clear from the chronicles themselves.

The reticence of the Nikayas relating to *Banga* is of greater moment. It may well lead one to suppose that no Indo-Aryan colony had up to the sixth century B. C. been founded in that province. But on this point the evidence of the chronicles is simply irresistible. Both the chronicles now extant, *Dipavansa* and *Mahavansa*, are the works of pious Buddhists whose primary object was to compile the history of the Buddhist Church. Everyone familiar with the sacred literature of the Buddhist knows how deep is the veneration of the followers of that creed for the middle country (Ganges Valley) of Northern India. The author of the introduction to the *Jatakar*, whose work is the standard authority on the Buddha's career in Ceylon, writes about the middle country :—

"In this country are born the Buddhas, the Private Buddhas, the Chief Disciples, the Eighty Great Disciples, the Universal Monarch, and other eminent ones, magnates of the warrior caste, of the Brahman caste, and the wealthy householders."*

Over and above this partiality for the middle country inherent in a Buddhist was the temptation of tracing the ancestry of the ruling dynasty from some one of the Saky Chiefs to which the chroniclers of Burma succumbed. If,

* H. C. Warren, '*Buddhism in Translations*, p. 43.

in spite of these considerations, the historians of Ceylon insisted upon pointing to Banga as the cradle of the ancestors of the princes and people of the island they must have had their reasons for so doing.

Tibet also received her first king from India through Central Asia. The relics of a kingdom in Central Asia founded by colonists from the Punjab have been only lately (in 1901) unearthed by Mr. M. A. Stein from the 'Sand-Buried ruins of Khotan.'* While speaking of the decipherment of many Kharosthi documents discovered by him, Mr. Stein says :

"But whatever revelations of interesting detail may be in store for us, one important historical fact already stands out clearly. The use of an Indian language in the vast majority of the documents, when considered together with their secular character, strikingly confirms the old local tradition recorded by Hiuen Tsiang and also in old Tibetan texts, but hitherto scarcely credited, that the territory of Khotan was conquered and colonised about two centuries before our era by Indian immigrants from Takshasila, the Taxila of the Greeks, in the extreme North-West of the Punjab. It is certainly a significant fact that within India the Kharostha script used in our tablets was peculiar to the region of which Taxila was the historical centre. Neither the language nor the script presented by our documents can satisfactorily be accounted for by the spread of Buddhism alone, seeing that the latter, so far as our available evidence goes, brought to Central Asia only the use of Sanskrit as the ecclesiastical language, and writing in Brahmi characters."

The local tradition, as recorded by Hiuen Tsiang, does not amount to much, and we shall wait with eager expectation the publication of the contents of the precious records discovered by Mr. Stein.

RAMA PRASAD CHANDA.

* "Sand-Buried Ruins of Khotan" (London, 1903), p. 403.

Art. III.—REGINALD HEBER.

A LADY who had heard Reginald Heber recite his prize poem "Palestine" at the Sheldonian Theatre, wrote some verses in commemoration of the occasion which seem to have suggested to the Rev. J. Drummond Burn the familiar hymn about the child Samuel.* As we read the story of Heber's boyhood it is certainly natural to recall to memory the picture of the little Levite who heard God speaking to him so plainly. And the simple directness of a holy childhood was Heber's to the end of his earthly days : in weariness and weakness he had ever about him the brightness of the angels of the little ones whose faces always behold the Father in heaven. The future bishop was born on 21st April, 1783, at Malpas, where his father, a descendant of an old Yorkshire family, was "co-rector." Educated at two small country schools, he matriculated at Brasenose College in the autumn term of 1800. Four years later he was elected a Fellow of All Souls. In the examinations he had been surpassed by others, yet his brilliance in the oratory and poetry of Greece had secured for him a reputation which could neither be increased or decreased by the tests by which men of ordinary abilities are usually estimated.

There is perhaps no incident in Heber's life which so clearly reveals his genius and goodness as the occasion of his prize poem "Palestine." In the spring of the year 1803, the boy read his poem to some friends at his breakfast-table. In their number was Sir Walter Scott, who, by way of suggestion, pointed out that in his description of the building of the temple Heber

"Hush'd was the busy hum ; nor voice nor sound
Through the vast concourse, mark'd the moment near ;
A deep and holy silence breath'd around,
And mute attention fix'd the list'ning ear."

"When from the rostrum burst the hallowed strain
And Heber kindling with poetic fire,
Stood 'mid the gazing and expectant train,
And woke to eloquence his sacred lyre."
etc., etc.

These verses close with the sentimental myth that the joy of the occasion caused the sudden death of Heber's father.

had made no mention of the striking circumstance that no tools were employed in the construction. Heber retired for a few minutes, and then came forward with those lines :—

- “No hammer fell, no ponderous axes rung,
Like some tall palm the mystic fabric sprung
Majestic silence !”

On the morning of the public recitation of the poem at the Sheldonian, Heber noticed that two young ladies of Jewish extraction were among his audience. Fearing that some of his lines might give them pain, at the risk of spoiling his performance, he attempted to alter the passage in delivery, but unfortunately his prompter called him to book. The effect of the recitation was unparalleled ; but from the plaudits of the crowded theatre, even from the embrace of his happy parents, Heber hurried away to hide himself. Martyn, when he became Senior Wrangler, wrote, “I obtained my highest wishes, but was surprised to find that I had grasped at a shadow.” That was not Heber's feeling. “His mother, impatient at his strange absence, went to look for her son, and found him in his room on his knees, giving thanks to God, not so much for the talents which had on that day, raised him to honour, but that those talents had enabled him to bestow unmixed happiness on his parents.” These incidents betray the character of Reginald Heber. His life is a fine illustration in actual life of a sermon preached by Aubrey Moore “through gentleness to greatness.”

We must resist a strong temptation to break into the subject of Heber's continental tour. In these present times of rapid travelling if we see much in a short time, it is so often at the cost of intelligent observation. Heber's account of his journey through Russia, like Bishop James' account of a journey, made six years later after the stirring events of Napoleon's campaign, may serve to remind us that, if to-day we move quickly through the world, we are not always so much at pains to be well informed as were the men who, because they travelled slowly, had time to understand their experiences.

But, if we are bound to pass over the events of Heber's early life with a rapid pen, it is necessary to form some estimate of the future Bishop's intellectual character and theological position. Reginald Heber was not a scholar to be compared

with either Middleton or W. H. Mill. An old school-fellow of his speaking of Heber as a boy writes: "For the critical sciences, or for critical knowledge, Reginald had no taste. When asked the date of a particular event, he could seldom give it, but he always knew who were alive at the time of its occurrence, by whose agency it was brought about, and what were the important consequences that resulted from it. In like manner the structure of the ancient languages was to him as a matter of secondary importance, which he attended to only as far as he was obliged by his school lessons and exercises. The sense of the author was eagerly grasped at by him, but the mere scaffolding of learning he only esteemed as the means of arriving at that sense."

Heber's Edition of the Works of Jeremy Taylor, a divine whom in so many ways he resembled, remains the best evidence of his mastery of English theology. His independence in judgment is illustrated by his estimate of Waterland as "a scholar so shallow and a guide, in many respects, so dangerous."*

Like Jeremy Taylor, Heber held what might be called "advanced" views, but, also like his master, he was extremely diffident in applying these views to the actual state of the Christian world. "The German Lutheran clergy," he wrote in 1812, "are as absolutely without episcopal ordination; and therefore, in view of an episcopal Church, as merely laymen as the dissenting teachers in our own country." Yet he would not for all that, blame the great Missionary Societies who had employed Lutheran clergy as Missionaries. He held that "the Church of England, forbids, without exception, all lay-baptism," but he was not prepared to maintain, as not a few eighteenth century Divines had contended, that lay-baptism was of necessity invalid. In point of fact, Heber held the typical position of the Caroline Divines. He believed and maintained the doctrine of

* *The Life of Reginald Heber.* By his Widow. Vol. II. p. 384. The context, may seem remarkable to modern eyes: "I know of no clergyman, except the Wesleys, who have refused the Eucharist to persons, who having been baptized in a dissenting communion have afterwards come over to the Church; and your correspondent may recollect that their practice in this particular was condemned by Gibson, Bishop of London, and by Archbishop Potter."

apostolic succession in the ministry, but he was not disposed to commit himself to negations in regard to ministries which had originated apart from the succession. When Bishop of Calcutta it fell to him to ordain some who had already been admitted to the Lutheran pastorate, but he was not prepared to accept the consequences which some might deduce from his action. His position can hardly be maintained, for certainly the English Ordination Service is far too unequivocal to be used as if it might apply *sub-conditions*, and if Heber's view has the approval of certain Anglo-Catholic Divines previous to the *débâcle* of the Church under the Commonwealth, it is not in accord with their riper experiences, and their mature judgment. Like his master, Jeremy Taylor, Heber's Churchmanship was somewhat academic and paradoxical, and it was both his weakness and his strength that he could be quoted with no small amount of confidence on either side of a dispute which, when he arrived in Bengal, was debated with increasing vehemence. It is most probable that Mill on the one side and Corrie on the other, both believed that their new Bishop shared their particular views, and that each sincerely regarded the other as a thorn in his Bishop's side. •

Heber returned from his continental tour in September, 1806, after rather more than an absence of fifteen months from England. In 1807 he was ordained, and shortly afterwards was instituted by his brother to the family living of Hodnet in Shropshire. Writing to his friend, John Thornton, he says : "I was beginning to perplex myself with several useless doubts which had once almost frightened me from taking Priest's Orders. The more I read of the Scriptures, the more I am convinced that John Calvin and his master St. Augustine were miserable theologians ; but I hope I am not deceiving myself in the idea that I may still conscientiously subscribe to the Articles, which may well, *I think*, admit of an Arminian interpretation. I hope I am not wrong. I had no doubts of this sort when I took Deacon's Orders." At Hodnet, the young vicar found a general disregard of Sunday and a considerable amount of drunkenness, and, he at once set himself to bind down the inn-keepers to a promise not to sell drink

on Sundays. His congregations were fairly large, but he found that Methodism had commenced to act as a hostile force.

In April, 1809, Heber married Amelia, the youngest daughter of the Very Rev. W. D. Shipley, Dean of St. Asaph, and grand-daughter of Jonathan Shipley, Bishop of St. Asaph.

During his residence at Hodnet, Heber was the author of many ecclesiastical and literary undertakings. In the years 1811 and 1812, he contributed to the *Christian Observer* a series of hymns "appropriate to the Sundays and principal holidays of the year, connected in some degree with the particular Collects and Gospels and designed to be sung between the Nicene Creed and the Sermon." He had been much repelled by the hymn-books popularised by the Methodists, and his criticism of these products anticipates a good deal that has been recently said and written in regard to the interpolation of "subjective hymns" in public worship. Of his series of hymns, he claims in a prefatory notice: "no fulsome or indecorous language has been knowingly adopted; no erotic addresses to Him whom no unclean lips can approach; no allegory, ill-understood and worse applied. It is not enough in his opinion, to object to such expressions that they are fanatical; they are positively profane. When our Saviour was on earth, and in great humility conversant with mankind, when He sat at the table, and washed the feet, and healed the diseases of His creatures; yet did not His disciples give Him any more familiar name than 'Master' or 'Lord.' And now, at the right-hand of His Father's Majesty shall we address Him with ditties of embraces and passion, or in language which it would be disgraceful in an earthly sovereign to endure?" The poet who could write such hymns as *Holy, Holy, Holy, From Greenland's Icy Mountains, Head of the Church triumphant, The Son of God goes forth to war, and Brightest and best*, had a right to criticise. The Archbishop of Canterbury and the Bishop of London, however, declined to authorise Heber's substitute for the dissenting books which were making Church-folk more and more discontented with the stilted

products of Tate and Bradby. In 1820, Heber applied for an authorization of his book, and, failing to obtain it, his hymns remained unpublished until after his death. Like Keble at a later date, Heber himself "felt some High Church scruples" in regard to the use of privately compiled hymn-books.*

In 1815 Heber delivered his Bampton Lectures on "the Person and Office of the Christian Comforter." A review of Madame de Stael's *De L'Allemagne* which had been contributed by him to the *Quarterly Review*, drew from that great lady a kind letter of acknowledgment.

Heber's school friend and companion on the continental tour, John Thornton, had become Treasurer of the C. M. S. Although Heber had at first joined the Bible Society in preference to the S. P. C. K., his riper Church views led him to join the S. P. G. rather than the C. M. S., yet his friendship for the last named Society, however, was both deep and energetic. In 1818 he had discussed with John Thornton a scheme for the amalgamation of the C. M. S. with the venerable S. P. G. Having consulted the opinion of a clerical meeting at Shrewsbury, on 12th October, 1818, Heber submitted to Bishop Ryder of Gloucester a formal scheme for the proposed union. As apparently nothing came of the proposal, there can be no point in reproducing here the terms suggested.†

At the close of the year Heber's personal friend, *the Right Hon'ble C. W. W. Wynn sounded Heber as to his views in regard to the See of Calcutta vacated by Dr. Middleton's death. It was felt that Heber was so likely to be offered an English bishopric,‡ that the offer of Calcutta could not be made to him as a direct proposal.

* See Overton : *The English Church in the Nineteenth Century*, pp. 131—3 Taylor's *Life of Bishop Heber*, p. 90.

† Heber's letter will be found in His Life by his Widow. Vol. 1, pp. 492-498. Cf. Stock : *Hist. C. M. S.* Vol. 1, p. 151.

‡ He had already been Bampton Lecturer, a prebendary of St. Asaph. and Reader at Lincoln's jun.

* It was, therefore, intimated that the See would be given to him if he were willing to accept it, but that in any case his advice would receive attention. After a consultation with the doctors, and having once declined, Heber declared his willingness to accept the See. The king's entire approbation of the appointment was at once announced.

To familiarise himself with the duties of his office, Heber spent much of the remaining time before departure, in studying "poor Bishop Middleton's" letters to the Board of Control, the S. P. C. K. and to private friends. On 1st June he was consecrated at Lambeth. On the 13th in replying to the valedictory address of the S. P. C. K., he described himself as "the chief Missionary of the Society in the East." On the 23rd he with his family set sail on the Company's ship *Grenville*, bound for "the land of disappointment, sorrow and death."

The selection of Reginald Heber to fill the See of Calcutta had not been regarded with complete satisfaction by the friends of Dr. Middleton. His light literary accomplishments, the ease of his movements in county society, and his shallowness as a professed scholar have been severally commented on by Archdeacon Churton in his *Life of Joshua Watson*. The disappointment became greater when it was found that Heber in his primary charge had said not a word about Bishop's College "upon which Middleton had rested his claims to a grateful recollection of present and future times, and upon which all the hopes of associated church men are built for the Christianization of India." Corrie in Bengal, however, was enthusiastic about the appointment.

As soon as it was known that the *Grenville* had reached Saugor, Corrie, Mill, and the Registrar of the Diocese (W. Abbott) went down the river on the Government yacht to meet

* By the depreciation of the value of the sicca rupee, the salary of the Bishop of Calcutta had fallen from £5,000 *per annum* to £4,250. Heber, however, was granted a residence which had been refused to his predecessor. Archbishop Benson was offered the See of Calcutta in a similar indirect manner when he was head master of Wellington

their new Bishop on 6th October a little below Diamond Harbour. Four days later, the yacht being unable to stem the force of the river, the party transferred themselves to rowing-boats, and after nearly nine miles of rowing, landed among some tall bamboos and walked until at last they found the carriages which had been sent to wait for them. Passing through the park-like residences of Garden Reach, they drove over Tolly's Nullah across the Calcutta Maidan to Fort William, where the former house of the Governors-General (now a Soldiers' "Outram" Institute), had been prepared as the Bishop's temporary residence. Among the clergy assembled to welcome the Bishop was Parsons, who had taken part in the Serampore Synod and who was now Chaplain of St. John's, Calcutta. He was an old school-fellow of Heber's at Whitchurch—"some years older than myself, whom I recollect when I was quite an urchin." This may explain how it was that Parsons was able to induce the Bishop to appoint Corrie rather than Dr. Parish to the vacant Archdeaconry. The day after his arrival, Heber was presented to the Governor-General, and in the evening was duly installed at his Cathedral. The next day being Sunday, he preached his first sermon in Calcutta, and, on the Monday, he appointed Corrie to the Archdeaconry.

Heber's most recent biographer, Dr. George Smith, has followed Kaye in a quite unhistorical view of Bishop Middleton's character and policy, and consequently, having depicted Middleton as a narrow-minded ecclesiastic whose troubles were "more than half created or magnified by his own temper," he places Heber in a pleasant light as one for whose liberal, kindly spirit there could be no difficulty in the way of getting on well with everyone. Dr. Smith, in fact, attempts to do for Heber what he has achieved for Martyn—to make the glory of the hero seem all the brighter by setting his figure against an artificially darkened background. Dr. Smith speaks of Middleton as having "left a legacy of personal controversies" to his successor. The sentence is most unjust because the personal controversies which Heber found on his arrival had arisen, not out of any act for which his predecessor could be held responsible, but from ancient differences between High

and Low Churchmen. In point of fact, when the time came for the genial Heber to lay down his rule, the actual state of the controversy was very much more embittered than it ever was in Middleton's day.

We do not in any way wish to belittle Heber's personal contribution to the building up of the Church of India: it is because Heber was so great that we feel that his reputation will acquire no true added lustre by an unhistorical depreciation of the character and acts of his predecessor. To Heber fell the enormous advantage of having had a predecessor. He had studied Middleton's correspondence, and before leaving India he had been able to obviate difficulties which he himself might have had to encounter had they not been so clearly indicated by Middleton himself. In Heber's correspondence there is not one word to show that he regarded those difficulties as anything else but genuine. Then, again, Heber came out to India, backed up by forces which to no small extent owed their being to Middleton's long continuous pleading with the Church at home. Heber enjoyed a popularity which only genius can attract, and there was a distinct tendency to grant to him as Reginald Heber things which would have been denied to him as Bishop of Calcutta. In this way, he had a distinct advantage over Middleton, and we may regard him with increased reverence in that he bravely refused to accept concessions made on the score of merely personal consideration. It will, moreover, be seen that the reason why Heber was able in a short time to accomplish so much was because his predecessor before his death had brought so many problems just within reach of solution.*

Of the problems alluded to, the first we may take into consideration is the relation of the missionaries to the Bishop. This problem, as we have seen, had been brought close to settlement before Bishop Middleton's death, but between the

* It must, however, be admitted that neither Heber nor James entirely approved of the pretentious scale on which the buildings of the College were commenced. Middleton had indeed been led on by the discovery that there was national enthusiasm for the College, to grander plans than he had at first contemplated, and he also seems to have in some respects been misguided by the expert advice of the builder, both as to the nature of the site and the requirements of the building.

Bishop and the Local Committee of the C. M. S. there was still some difference as to the extent to which missionaries might undertake work amongst European christians at places where a chaplain either had been or should be provided. Heber, before leaving home, had procured an opinion from the King's Advocate to the effect that "all clergymen of the Church of England employed in any ministry within the Diocese of Calcutta are subject to the Bishop's authority." At a meeting of the C. M. S. Association, held on 2nd December, a resolution was proposed "that every missionary of the Society should on his arrival at Bengal wait on the Bishop for his license." Curiously enough, the missionaries themselves were all unanimously in favour of the resolution, but they were not allowed to vote. The opposition, came from lay members, and a single chaplain, who quite unnecessarily were under the apprehension "that a Bishop might refuse his license, and break up the Society." The fact that the resolution was lost is surely a proof, if one be needed, that Bishop Middleton's difficulties had not been, as his critics would have it, self-caused. Heber, however, succeeded in getting the resolution accepted as a by-law of the Committee, and with the opinion of Counsel to support him, he really hardly required so much as this. Writing to Mill, after the Meeting, he said: "Notwithstanding the foolish things which were said yesterday I have continued in my situation as President; and I expect to derive great benefit to the Church from the attendance of yourself and men like you. It is, after all, an object not to be abandoned hastily,—to retain a numerous and wealthy and most active body of men, in the avowed allegiance of the Church, and at a distance from the ready embrace of the dissenters. It is something, much more, to attach such a body in spirit as well as in name, to our forms and discipline; and it was a source of much encouragement to me yesterday that all the missionaries present, and all the other clergy, except one, were among our active and anxious supporters."

Another of Bishop Middleton's difficulties had been the legal obstacles in the way of the ordination of Native Christians in the territories of the H. E. I. Company. An Act (5 and 6 George

IV. c. 71. 1824-5) was passed which removed what had been, not a mere obstacle created by Middleton's pedantry but, a positive defect in the Bishop's legal capacities which the ever watchful secular authorities kept in view. In 1824, Heber ordained Christian David, a native catechist and a pupil of Schwartz, who had been sent from Ceylon to make his studies at Bishop's College. On November, 1823, he ordained to the diaconate Abdul Masseeh, the convert of Henry Martyn, whom Brown had baptised on Whit-Sunday 1811.*

Another difficulty lay in the application of the law in regard to the consecration of Churches to India. Bishop Middleton's practice had been challenged by the Government of India, and some difficult correspondence ensued in the course of which the Government consented to the proposal that in cases where the ground or buildings had been provided by the state a trust-deed should be executed by the Government. The Advocate-General of Bengal, after some delay, pronounced that such deeds were not necessary, and that a written declaration on the part of the Government deposited with the Bishop's Chancellor or Registrar would meet all possible requirements. On 14th December, 1821,* the Government communicated this opinion to Bishop Middleton, and requested him to be contented with a simple declaration of their intention. Such was still the state of affairs when Middleton died. Heber on his arrival found two Churches ready for consecration, St. Stephens', Dum-Dum, and St. James', in Bow Bazaar, Calcutta. He therefore applied for the declaration of intention which had been promised to his predecessor. The document granted in reply is of very considerable importance in relation to questions

*As Abdul Masseeh's was the first ordination by an English Bishop of a native of India, it may be worth while to recall some facts about his life. He was born at Delhi and his original name was Shekh Salih. First a school-master, then a munshi, then an officer in the Company's service, then in the pay of the Nawab of Lucknow, and then a trooper under two native chiefs, Abdul at last reached Cawnpore where he came into contact with Henry Martyn, and helped to copy Persian MSS. for Sabat. Given to him Martyn's translation of the New Testament he read its contents and was convinced of their truth. He accompanied Corrie to Agra, and was the first C. M. agent in India. His Journals appeared in England in the new *Missionary Register* and evoked no small enthusiasm. He died in 1827, His Missionary work was carried on for a time under the Chaplain of Agra—Dr. Parish.

which have repeatedly been raised since Heber's day,* and we will therefore cite it in full :—

“Government Department, Ecclesiastical,
“To the Rt. Rev. the Lord Bishop of Calcutta.

“MY LORD.

“1. I have the honour to acknowledge the receipt of your Lordship's letter.

“2. The Government entirely concur in your Lordship's opinion with regard to the propriety of the Churches of Dum-Dum and St. James' being consecrated, and it is the wish of the Governor-General in Council that the solemnity in question should take place at such time as may suit your Lordship's convenience. I am at the same time directed to intimate to your Lordship that it is the intention of Government to preserve the sacred edifices referred to from desecration of all kinds, and to dedicate them to the exclusive service of the Church of England.

I have the honour to be, with great regard,

My Lord,

Your obedient humble servant,

C. LUSHINGTON,

Secretary to the Government.

COUNCIL CHAMBER,
20th October, 1823.

Bishop Middleton has been blamed on the score of the cultivation of a spirit of excessive precaution, but the necessity of moving slowly is illustrated by the policy of his successor, who has never been similarly censured. In the letter to W. H. Mill, already cited, Heber speaks of “the peculiar circumstances of India, the novelty of episcopal authority in these countries, and the suspicion arising from an ignorance of its real nature, with which every claim made by that authority is regarded.” “With all such,” he continues, “it seems to be my business to proceed calmly : from all such to bear as much as I am justified in doing, till by a patient discharge of more popular duties, I can obtain a patient hearing for my unpopular claim, and prove, as I verily believe I shall be able to do, how much these claims have been misunderstood and misrepresented.” Heber also felt constrained to adopt a certain amount of caution in respect to

* These documents show how false is the statement recently put forward that the Garrison Churches were built by the Government for *all* protestant denominations. Heber received similar assurances before he performed the other acts of consecration mentioned in this article. The documents are given in an article which appeared in the (English) *Church Quarterly Review* for January 1900.

the advocacy of direct missionary propaganda. He thus discouraged the proposal to publish Christian David's sermon—the first preached after his Ordination—at the Old Mission Church.

We have seen that Heber's first residence in Calcutta was the Government House in Fort William. The Fort was then, as it was indeed in the early days of Lord Roberts many years later, dependent on the adjutant birds for its cleanliness—a thoroughly unhealthy place. The Company had forgotten that they had promised the Bishop a house in Calcutta, but in November [27th], 1823, the local Government permitted Heber to rent, at their charge, a house at 5 or 600 rupees a month. With this house allowance to his credit, the Bishop for a time rented a house at Titaghur belonging to the well-known botanist, Dr. Wallich. At this spot he was, of course, a close neighbour to the Governor-General at his country residence at Barrackpore, and in the January of 1824 Heber made the acquaintance of the great trio of Baptist Missionary pioneers—Carey, Marshman, and Ward—at their famous station of Serampore on the opposite side of the Hughli. Here, too, on a return journey from his Cathedral city Heber was appalled by the sight of the glowing embers of a funeral pile on which a *suttee* had but an hour or so ago taken place. Dr. Marshman, on the occasion when he dined with the Bishop at Titaghur, in speaking of the *suttee*, said “that these horrors are of more frequent occurrence within the few last years than when he first knew Bengal; an increase which he attributes to the increasing luxury of the higher and middling classes, and to their extensive imitation of European habits, which make many families needy, and anxious to get rid, by any means, of the necessity of supporting their mothers, or the widows of their relations.” In the following April, the Bishop witnessed the *charuk* or swinging festival on the Calcutta *maidan*.

Not the least of the ecclesiastical perplexities which beset Heber in the early months of his episcopate was afforded by the resistance of the Senior Chaplain at Bombay to the arrangement by which the Archdeacon was privileged to preach on certain occasions at the Presidency Church. The topic, however, only needs to be mentioned here because it illustrates the difficulty

presented to the early occupants of the See of applying English experience and law to problems of Church discipline in India. After five months of incessant duggery at Calcutta and Titaghur, Heber inaugurated his Primary Visitation by a charge delivered at St. John's at six o'clock in the morning of Ascension Day, May 27, 1824.

It was now Heber's duty to visit first those parts of British India which had not as yet been visited by an English bishop. War was at this time imminent in Burma, and the Bishop therefore declined to avail himself of the services of a doctor which he felt would be severely needed by the troops in the campaign. On June 15th he left for Dacca, the former capital of Bengal, once famous for its muslins, and to-day an important educational centre at which the Oxford Mission is developing slowly but surely a great enterprise on behalf of Christianity. The Bishop went on board a sixteen-oared pinnace, attended by two boats for servants and for cooking, and proceeded up (to-day we should go down) the river. Dacca was not reached till July the 4th, where his Chaplain, the Rev. Martin Stow, died in his arms. At Dacca, the Bishop writes, "A Baptist missionary has established a circle of twenty-six day schools, containing more than 1,000 boys, who all read the New Testament daily as their task, without any objections being made; and had the Church of England Societies a missionary at present to spare, he might in a month double the number." Eighteen days were spent at Dacca, and then the Bishop proceeded to Bhagalpur, the first mofussil missionary station of the S. P. G. in India, already consecrated by the noble life of a Civil Servant, Augustus Cleveland, and soon to be hallowed as the death-place of one of the earliest S. P. G. missionaries in Bengal—Thomas Christian. At Bhagalpur Archdeacon Corrie joined the episcopal fleet.

From Bhagalpur the episcopal party proceeded to Monghyr and thence to Patna—the Pataliputra of Asoka. From Patna the Bishop visited the lines at Dinapore where he found the spiritual state of affairs in a sad condition. The Orders requiring the men to attend Church every Sunday were disregarded and the planters in the neighbourhood "seemed utterly

without religion of any kind." Bad as things had been, they had been aggravated "by exceeding bad conduct of the late chaplain." The room used for a church was small and inconvenient, without an altar, lights, punkahs or shades for the windows. On 25th August Heber departed on his pinnace under a salute of artillery. The course of the tour now led him through two places for ever memorable in the history of British India—Chupra, the scene of Eyre Coote's victory over Law, and Buxar, the scene of the battle which secured our rule in Bengal—to Ghazipur and Benares, the sacred city of Hinduism. The Bishop was received with great cordiality by the Brahmans, who never having heard tell of a "Bishop of Calcutta," and yet knowing that it was unlikely that their visitor being an Englishman should be the Pope of Rome, conjectured that he must be the only other great pontiff of whom they had heard, the "Papi Roum," *i.e.*, the Patriarch of Constantinople. Covered with garlands Heber quaintly says that he felt "more like a sacrifice than a priest." During his stay at Benares, the Bishop wrote in his Journal: "The custom of street-preaching, of which the Baptist and other dissenting missionaries in Bengal are very fond, has never been resorted to by those employed by the Church Missionary Society, and never shall be as long as I have any influence over them. I plainly see it is not necessary, and I see no less plainly that though it may be safe among the timid Bengalees, it would be very likely to produce mischief here. All which the missionaries do is to teach schools, to read prayers, and preach in their Churches, and to visit the houses of such persons as wish for information on religious subjects."

On 10th September the Bishop left Benares for a short visit to the striking rock fortress of Chunar, where he heard from Messrs. Greenwood and Bowley accounts of their work for the C. M. S. and confirmed nearly 100 persons, 57 of whom were natives—mainly soldiers' wives and children. On the Sunday, 12th September, four clergymen and two catechists assisted the Bishop at the morning service, and about 130 persons received the Blessed Sacrament of whom nearly 70 were native converts. Ten days were spent at Allahabad, a place which, although it

did not enjoy the services of a chaplain, yet presented twenty candidates for Confirmation.

At last on the 30th of September the caravan was ready for starting—"twenty-four camels, eight carts drawn by bullocks, twenty-four horse-servants, including those of the Archdeacon and Mr. Lushington, ten ponies, forty bearers and coolies of different descriptions, twelve tent-pitchers, and a guard of twenty sepoy's under a native officer." "The whimsical caravan," the Bishop writes, "filed off in state before me; my servants, all armed with spears, to which many of them had added, at their own cost, sabres of the longest growth, looked, on their little ponies, like something between Cossacks and Sheriff's javelin men; my new Turkoman horse, still in the costume of his country, with his long squirrel-like tail painted red, and his main plaited in love knots, looked as if he were going to eat fire; while Mr. Lushington's horses, two very pretty Arabs, with their tails docked, and their saddles English ("ungiri") fashion, might have attracted notice in Hyde Park: the Archdeacon's buggy and horse had every appearance of issuing from the back gate of a College in Cambridge on a Sunday morning; and lastly came mounted some *gens d'armes* and a sword and buckler men on foot, looking exactly the advanced guard of a Tartar Army." Marching with difficulty through a flooded country, the caravan after ten days reached Cawnpore.

At Cawnpore there was still no church for the parade services, and the riding school of which Martyn had so strenuously complained was still in use as a church on Sundays. After a Confirmation, the Bishop left Cawnpore on Monday afternoon, 18th October. The unsettled state of affairs in the kingdom of Oude necessitated an increase in the number of the Bishop's armed retinue. On 21st October, the episcopal party mounted on three elephants abreast, entered Lucknow, but were soon compelled to fall into single file in order to pass through its narrow and squalid lanes. Some little difficulty was caused by the fact that this visit to Lucknow had been the result of a sudden thought on Heber's part, and consequently no prior notice had been given by Lord

Amherst to the ceremonious court of "the Asylum of the world." The Bishop's visit to Lucknow was prolonged in order to enable him to perform the marriage service for the Resident, Mr. Ricketts, a very excellent churchman, who, in the absence of a chaplain, was in the habit of reading Divine Service each Sunday at the Residency. The impression formed by the Bishop was that it was not as yet expedient to send a missionary to Lucknow, but a school master "furnished by our Society with a stock of sermons" might very well be placed there. It is needless to say, that the Roman Catholic Church had not been quite so shy, and that in Lucknow there was already a small Roman Catholic chapel served by a Franciscan priest.

The farewell to Lucknow was a sad one, for Mr. Lushington had to be left behind dangerously ill. On Monday, the 1st of November, the Bishop, now to be unattended by any European companion, parted from the Corries "much agitated and their little girls in tears": he himself was indeed more depressed in spirits than he cared to let his friends know. After recovering from an attack of fever, he was laid up with "Calcutta and Lucknow influenza," Heber traversed the district from Lucknow to Bareilly, then in an unsettled state of government, and as he passed through the principal stations he found no traces of Christian organisation to provide for the spiritual needs of his widely scattered fellow-countrymen. On 28th November, the Bishop administered the first Eucharist at the famous hill station of Almora.

Not till the 18th December did Heber meet again with a fellow minister, and then it was Mr. Fisher—the fine Chaplain-Missionary of Meerut. The following day the first church at Meerut, of historical memory in the great Mutiny, was consecrated. "The congregation," writes Heber, "was very numerous and attentive, and the appearance of everything highly honourable both to the Chaplain and the military officers of this important station. I had the gratification of hearing my own hymns 'Brightest and Best' and that for St. Stephen's day, sung better than I ever heard them in a Church before. It is a remarkable thing that one of the earliest, the largest, handsomest Churches in India, as well as

one of the best organs, should be found in so remote a situation, and in sight of the Himalaya mountains." At Meerut the Bishop met the famous native corporal who had been dismissed by the Government from his regiment for the sole ground of his conversion to Christianity. On Christmas Day two hundred persons received the Blessed Sacrament at Meerut.

Delhi was reached on 29th December, and on the last day of 1824 the Bishop was presented to the Moghul Emperor. Agra was reached on 12th January. Here the Bishop met at breakfast Corrie's celebrated convert, Abdul Masseeh. The interest of Heber's *Journal* as he passed through many far-famed cities would tempt the writer to far beyond the limits of his subject, and he must, therefore, summarily refer the reader to the *Journal*, which after long years of great popularity is perhaps to-day falling into undeserved neglect. From Agra the Bishop passed to Jeypore, Ajmere, Neemuch, and Baroda. Nuseerabad, visited in February, was an important military post, but without either church or chaplain, and Heber had to use his powers of persuasion to secure the use of the fine ball-room for his Sunday service. At Baroda he found a Church — "a small but convenient and elegant Gothic building accommodating about 400 persons extremely well." On 18th March, the Archdeacon of Bombay, Dr. Barnes, whom Heber had known at Oxford, and who had postponed his resignation until he could meet the Bishop, joined the caravan. Easter was spent at the walled city of Kaira where the Bishop had consecrated "a large and solid but clumsy" Church. On the 13th April Surat, the while one chief factory of the East India Company, was reached. On the 17th, the Bishop consecrated the Church recently erected, and the famous burying ground with its vast ruinous tombs of the Company's servants, among which the largest and most striking is that of the noble Sir George Oxinden. The same day as the Consecration, Heber embarked for Bombay, where, on the 26th April, he met once more his wife and eldest daughter.

The Visitation on the 28th April was attended by the Archdeacon, six chaplains, and one missionary. On the 5th May the foundation stone of a Free School on the same plan

of that of Calcutta was laid. Meetings were held to strengthen the cause of the great Church societies, and Heber's programme at Bombay reminds us that we have at last come to the time when a Bishop's acts in India were ceasing to be isolated events, but parts of a regular routine.

Heber's strength had been much taxed by the arduous of his tour. "You will find me a good deal aged," he wrote to prepare his wife: "the march from Neemuch, and the 'iron clime' of Guzerat have done me more wrong than all my previous wanderings." The rest at Bombay and reunion with those about whom he had been most anxious, however, soon restored his strength and buoyancy.

Once more we must resist the temptation to follow the Bishop on his expedition to the caves of Elephanta, the Western Ghauts, and the Governor's beautiful country retreat at Parel. In visiting Poona, for the purpose of consecrating the Church, the Bishop in his palanquin was exposed on two successive nights to the rains of the Dekan, and the result of this and further exposure on the return journey to Bombay was a recurrence of his fever. It is sad to record that the misconduct of a Bombay Chaplain compelled Heber at this time to experience the troubles which Middleton had experienced in the matter of the holding a consistory court.

Heber's visitation at Bombay marks a very distinct step in the growth of the Church in Western India. No less than five Churches had been built, thanks to Bishop Middleton, since that prelate's last visitation, and in addition to these two other buildings were sufficiently far advanced for Heber to be able to license them for purposes of Divine worship. Bombay was at this time but a poor and humble sister to the presidencies of Bengal and Madras, yet from the Bombay Presidency the Bishop now secured some £1,800 for the Missionary College at Calcutta. And from Bombay, Heber took away with him a learned priest to act as his domestic chaplain, Dean Vaughan's immediate predecessor as master of the Temple—the Rev. T. Robinson.

The Bishop had intended in his visitation to include a tour through either Central India, as yet unvisited episcopally, or the country occupied by the ancient Syrian Church of Malabar.

But his presence was now urgently needed at Calcutta : so on the 15th August the episcopal party, now accompanied by Mr. Robinson as Bishop's Chaplain, went on board the *Discovery*, and ten days later arrived at the harbour of Galle, in the Island of Ceylon. Heber spent a very busy month in travelling through the island, and it is interesting to notice that he, as his predecessor had done, formed a highly sanguine opinion as to the future of Christian missions in Ceylon. "I really think," he writes, "that there are better hopes of an abundant and early harvest of Christianity here, while at the same time, there are more objects connected with its dissemination and establishment which call for the immediate and almost continued attention of a Bishop, than are to be found in all India besides." The *Calcutta Church Missionary Society's Report* describes with enthusiasm the event of the visitation. "The native Christians," it states, "have for the first time been brought into close connection with our episcopal head : for it was his practice in every station to administer the Sacred Elements to them, and pronounce the Blessing in their own language, thus teaching them to regard him as their chief pastor, and winning them in all other respects by most affectionate, conciliating, and impressive addresses." At Ceylon, beside his ordinary pastoral work, the Bishop appointed Mr. Glennie as successor to Twisleton in the Archdeaconry, and founded a local Branch of the S. P. G. On the feast of St. Michael and All Angels, the Bishop again set to sea, and Calcutta was reached on the 21st October 1825.

On his return to Calcutta, Heber entered into the house, No. 5, Russell Street, which, despite repeated reports from the ecclesiastical authorities as to its dubious conditions of safety, remained the Bishop's Palace until in 1849 Bishop Wilson, in the tenth year of his episcopate, acquired the present Palace in Chowringhee by a transaction which well supports the saying of one of the Governors-General that the Bishop of Calcutta was the acutest man of business he had ever met with in India.*

* For a few months in 1824 Heber occupied No. 5, Middleton Place (Row) the former residence of Sir E. Impey. A most interesting historical note on the Calcutta residences of the Bishops has been compiled for H. E. the Viceroy by the well known historian Dr. C. Wilson.

The College, despite the sanguine expectations of its Principal, had been making but slow progress. At the end of 1822 Mill had set another three months' limit to the time still necessary for the completion of the work. Heber on his arrival, however, found "it a mere shell of elegant architecture, but without offices of any kind, in the midst of a wilderness of high grass, creeping shrubs, and stagnant pools, which were supposed, in Calcutta, to hold out a very dismal prospect to the health of all who might become its inhabitants". The architect, Captain Hutehinson, was busily employed on Government work elsewhere. Owing to errors in the building the sums which had been intended for the drainage had been expended on the building, and there was now a considerable debt on the undertaking. At Xmas time, 1823, Professor Alt and his young wife took up their residence in the still uncompleted buildings. In 1824 the College had already sent out an ordained Missionary—the Ceylon Priest in Bishop Middleton's days Christian David, and the S. P. G., which, had not a single European clergyman in its Indian Missions, had now three in Bengal—Morton, Christian and Tweedle. To these three was assigned the work of supervising the schools established by the S.P.C.K. at Howrah, Tollygunge and Cossipore.

On his return to Calcutta, the Bishop at once took up the affairs of the College, for the support of which, both at Bombay and Ceylon, he had pleaded with no little success. To forward this aim he now founded a branch committee of the S. P. G. at Calcutta. By the end of 1825 the College had three resident scholars—W. Addison Godfrey, C. Garstin, the son of a Colonial chaplain in Ceylon and himself a future Bengal chaplain, and Charles Driberg, the son of an officer of H. M.'s Cingalese regiment. A curious comment on the ancient alarms raised by Anglo-Indians at the introduction of missions to the heathen is afforded by the fact that at this time an influential Hindu gentleman came forward and offered an annual subscription of Rs. 400 per annum to the College.

The Ordination held on 31st December must have been one of the most impressive events of Heber's episcopate. On that day Abdool Masseeh received the Priesthood and John

Adlington, a pupil and almost an adopted son of Corrie, the deaconate. Corrie himself was the preacher. A good deal of the service was in Hindustani, the Bishop taking his part without difficulty. "It was an awful and touching moment," writes one who was present, "when the *Veni Creator* was sung by the congregation, the Bishop reading the verses from the altar surrounded by twenty of his clergy kneeling in their surplices. All seemed to feel the beautiful devotion of this heavenly hymn, and to join with one heart in the sublime invocation of the ever Blessed Spirit. Who can doubt that such prayers were answered? Father Abraham was present with his vicar during the whole service. He embraced the Bishop at the door of the vestry, and attended him to his carriage, where he and Ter Jacob embraced me and expressed their pleasure at thus joining with us, and their sense of the honour with which they had been received."*

At Bombay the Bishop had received tidings that the Dutch settlement at Chinsurah, some 25 miles above Calcutta on the opposite river bank, had been ceded to the East India Company, and that the quaint little State church of the Dutch Governors was now at the disposal of the Church of England. So early in 1826, Heber fared to Chinsurah, and stationed there Mr. Morton as the first head of an S. P. G. Mission—now alas long years since abandoned. Here the Bishop was attacked by a fever, which in his widow's belief was connected with now not distant event at Trichinopoly. As soon as his recovery was effected he sailed (February 1826) in the *Bussora Merchant* for Madras, not, however, before he had welcomed to Calcutta two new professors for the College and Mr. F. de Mello, the printer.

On 28th February the ship anchored in the Madras roads. The travellers went ashore in an "accommodation boat," which the Bishop laughingly described as "the gig of Noah's Ark." Next day, a Sunday, Heber preached at St. George's a sermon pathetically full of intimations of his own earthly end, from the text Phil. i. 25: "To die is gain." With no small emotion he visited the venerable S. P. C. K. missionary, Dr. Rottler, and

* Robinson: *Last Days of Bishop Heber*. pp. 68, 69.

listened to his catechism of the little ones. At Vepery "he was particularly struck with the good taste which, by placing the pulpit and reading desk on each side of the aisle, gave from every part of the church a full uninterrupted view of the recess of the altar, which is well raised and of excellent proportions. It is his wish that in every church the Altar should be the first and chief object, and that it should be rather more elevated than the rest." The question of the retention of caste distinctions, permitted by Schwartz, was brought before the Bishop's notice, but he wisely deferred any expression of opinion until he should have collected sufficient information for a mature judgment after the completion of his visitation of Southern India. At the Confirmation on 8th March no less than 479 candidates were presented. From Madras, the military station at Poonamallee was visited, where there was a small church already consecrated by Middleton. Here the Bishop ordered the removal of an enormous pulpit which completely hid the Altar from view. At Madras the Bishop and his chaplain paid a state visit in their robes to thank Lady Munro for her kind patronage of the Vepery schools. The meeting of the two great men, Heber and the venerable Sir Thomas Row, was a remarkable and pathetic occasion. The Visitation at St. George's on the 10th was attended by no less than fourteen clergy—a sure sign of the Church's growth. On the 13th, the episcopal party left Madras to travel along the route followed by Middleton some ten years before.

Pondicherry, Cuddalore and Chillumbrum, were visited, and, on 25th March, Heber was received at Tanjore by the patriarch of the Lutheran Mission—Kohlhoff. At the altar, in part of which lie the remains of Schwartz, Heber celebrated his last Easter Eucharist. At Tanjore, the Bishop exchanged state visits, as his predecessor had done, with the Rajah, for whose welfare he wrote some touching prayers preserved in the biography edited by Mrs. Heber.

Trichinopoly was reached on the 1st of April. On the 3rd, the Bishop commenced the day at the Tamil Service, where he confirmed eleven Tamil candidates and pronounced the

Blessing in Tamil. He then visited the English and native schools and the Mission House, and in Kohlhoff's presence addressed the natives who had gathered round the steps leading to his house. On entering, before taking off his robes, he went in to visit his chaplain, Mr. Robinson, who had been too ill to leave his bed that day. "He stood talking by my bedside for half an hour with more than usual animation on the subject of the Mission. . . . He said he had been so much interested in all he had seen, that it broke his heart to witness the poverty of the congregation, which needed much the constant care of a vigorous and active missionary. After some particular arrangements for the morning, he left me, in order to undress and bathe. He sat a few minutes absorbed in thought, before he went to the bath, which is a separate building, a few yards from the house, and filled from a spring, considerably beyond his depth. He had used it on the two preceding mornings, and enjoyed it exceedingly. His servant, alarmed at his staying beyond his usual time, and hearing no sound, opened the door, and saw the body apparently lifeless below the surface of the water. He ran immediately to my room and gave the alarm with a bitter cry that his master was dead. On reaching the bath I plunged in, and assisted a bearer, who was already there, to lift the body from the water, and Mr. Doran and I carried it in our arms to the nearest room. Every possible means were instantly used, but in vain : the Garrison and Superintending Surgeons, who arrived almost immediately, continued their attempts at resuscitation for a considerable time, but all hope was gone, and the blessed Spirit was already before the throne of God. They give it as their decided opinion that his death was caused by apoplexy ; there had probably been a predisposition to it which the shock of the cold water had suddenly brought on.

"All were plunged in grief. The venerable and excellent Mr. Kohlhoff visited me, and his almost passionate burst of sorrow was deeply affecting. He threw himself in my arms weeping aloud. 'We have lost our dear Father ! We have lost our second Schwartz who loved our Mission and laboured for it.

He had all the energy and benevolence of Schwartz, and greater condescension. Why has God bereaved us thus ?' It was long before the good man's grief could be moderated : I cannot wonder at its violence and I dare not blame it. 'His hopes had been raised to their height by the labours of unwearyed love which he witnessed at Tanjore.'

Heber's mortal remains rest on the north side of the altar of St. John's Church, Tanjore where but twelve hours before his death he had blessed the people in his Master's name.

WALTER K. FIRMINGER, M.A.

Art. IV.—THE PRE-MALAYAN.

MALAYA is singularly destitute of historic monuments. A rock inscription in an archaic variety of the Devanagari script has been discovered in Province Wellesley and one or two other relics elsewhere. Otherwise, of the purely native period of the Peninsula, Hindu or Mohamedan, we have no record, written or monumental, save the "Sejarah Malayu," a work compiled long after the advent of Europeans, and other ingenious but not very reliable chronicles. The oldest historic buildings are those of the Portuguese invaders.

But if we turn to the jungles we have living examples of ancient periods of human history perhaps not to be matched elsewhere. The aborigines of the Malay Peninsula go by many names and belong to several different stocks.

In Selangor and Johor are the Jakuns who have nearly lost the last vestiges of their ancestral speech, and, but for their non-acceptance of Islam, might be Malays. In Pahang the Sakai along the Klau river speak only Malay, and retain but a faint suspicion of the guttural brogue that enables one to recognize aborigines within earshot, even if dressed like Malays and speaking Malay.

There are in Selangor and on the Rompin river in Pahang fair-skinned Sakai, who, probably, on investigation, will prove considerably differentiated in speech, and perhaps in blood from the aborigines on the upper reaches of the Pahang river. These latter call themselves Senoi and are straight-haired and brown-skinned like the Malays, but speak a language crackling with gutturals, words ending in kn or tn for choice. Close to Malay Settlements this speech is sadly corrupted with loan words, which obey the phonetic laws of the native tongue, the Malay word "Kampung" (village), for instance, becoming "Kampokn." Behind these in the extreme Ulu Tenom and Ulu Kelantan are the Tembi, speaking an allied dialect, but with many different roots and, according to Malay testimony, much harder to acquire. They somewhat resemble

Tamils, being black with lean wiry limbs, frizzled hair and a general appearance of suppleness. An aged Sembi with a heavy grey beard (a rare thing among Malays) had an air of majesty that would have sat well on Cato the elder. But the youths grinned all over at the spectacle of a white man trying to write down the torrent of vocables they alleged to be the words of their language, and would not utter one word at a time, as the Senoi would. Those I have seen were perfectly free from the hideous skin diseases which so disfigure most of the Senoi.

Again on the Kechau river there are light-skinned aborigines who are called by the Malays "kutu tanah" (bugs of the earth) because they wander about grubbing up roots and sleep hutless, wherever night finds them.

Finally, in the mountains near the middle reaches of the Perak and Pahang rivers are a race who were probably the very earliest human inhabitants of Malaya. In Perak men call them Semang, in Pahang, Pangan. They are black, small and ugly and rarely meet with mankind, against whom they defend themselves with the poisoned darts of the "Sumpitan" or bamboo blowpipe. Like the "kutu tanah" they build no shelter against the elements, at the most cutting a few palm-fronds to close the space between two roots of a big tree so that they can curl themselves up in a measure of security behind them. They wander about grubbing up insects and roots and shooting birds and small animals with their blowpipes.

All these pagan tribes are contemptuously referred to as "Sakai" (slaves) by the Malays, or, if they wish to please them, as "orang bukit" (hillmen), "orang darat" (landward men), "orang benua" (inlanders), or "orang raiat" (subjects). Yet it is probable that they are the original owners of the Peninsula, and the ancestors of the Malays themselves. The objection that, whereas the Malay tongue and the Malay race are found all over the Archipelago, the Sakais only exist in the Peninsula, and therein speak several mutually unintelligible languages, is not a fatal one. It is not claimed that the Malays ever spoke any of the *existing* Sakai dialects, merely that out of a group of archaic Sakai dialects, one, the

Malay, spoken by these Sakai nearest the trade emporiums, developed and spread, in the same manner as, out of a group of Scandinavian dialects, English has spread throughout the globe while Icelandic, Danish, Swedish and Frisian are confined to the North-West of Europe.

Many of the Malays think that they were originally a Jakun tribe civilized by Hindu invaders. The physical appearance of the Malays and Senoi is identical, bar the wild restless glance of the Senoi, a result of centuries of oppression. According to well-founded traditions it is scarcely two centuries since the states of Negri Sembilan were formed by an admixture of Sumatran Malays and Sakai.

According to local tradition ten generations ago the site of the village of Budu, the largest and prettiest village in Ulu Pahang, was a Settlement of Sakai cultivating hill padi under a king named Raja Kuali from father to son. Malay pioneers saw that it was a good land, abounding in rich swamps and fruit orchards, and accordingly a band set out to advance the frontier of civilization. But the misguided savages, like savages in other parts of the world, failed to recognize the right of acquisition inherent in superior races, and resisted fiercely with bows and arrows and sumpitans.

But kris and spear proved irresistible and the broken remnants were driven into the mountains, and the Malays settled down and made padi swamps and planted cocoanut groves.

Furthermore, there is a village in the neck between the Lipis and Jelai rivers near their junction, where the cocoanut trees are in their first generation and have but recently begun to bear. If this is a normal incident of the diffusion of the Malays, it is obvious that three hundred years ago there were as few Malays along the main stream of the Pahang as there now are along its tributaries.

It is evident by native tradition, by present day superstition, by the vocabulary of the language, that the Malays passed through a Hindu period of some duration before they accepted Islam. But as to who the Hindu invaders were, there has been great difference of opinion. Some have suggested Telugus, others Guzeratis, but I think it has now been pretty well proved

by Mr. Blagden in an able paper read before the Straits branch of the Royal Asiatic Society that the old rulers of Malaya belonged to one or other branch of the Mon-Anam family. Mr. Blagden has collated Talaing and Kambojan words with those of various Sakai dialects and shown striking resemblances. Moreover, all over the Peninsula there are old workings called by the Malays "lombong Siam" (Siamese mines). Now it is a historic fact that Siam never reached the sea till the fourteenth or fifteenth century, whereas Pegu and Kamboja were of old great and powerful empires.

When in a lucky or unlucky day the king of Malaka became Sultan in obedience to a vision from heaven, the gulf became very wide between the civilized seafolk, now of the chosen religion, and the rude inlanders, now kafirs (infidels), whom it was an innocent pastime, if not a positive duty to kill, plunder and carry away captive. Being unorganized and inexpert in stockade warfare, the tribes became clans and the clans scattered families. For those within reach of the Malays it became a choice between the civilization of the helot and the fugitive independence of the wild beast. In the heart of the Peninsula, where they used to kill small bands of intruders, the Senoi plant millet and build village houses and have the elements of social existence.

A charming old village headman told me that in his youth he and other young sparks used to make a night attack on a Sakai Settlement, killing the men and carrying off the young women to sell as slaves to Sumatran immigrants. As soon as the Sakai males were aroused the raiders would beat a precipitate retreat, for they durst not face the little poisoned darts, a touch from which drops a man rigid in less than two minutes. To gloze the matter over to their consciences, they called it warfare not kidnapping.

Since the inauguration of the British Residential system, raids on the Sakai and the holding of the Sakai slaves have ceased and they have in various degrees advanced in prosperity and civilization. But the most civilized have still a furtive eye and are ready to bolt into the jungle on slight provocation. For the most part they acquire the luxuries of civilization, that

is to say tobacco, salt, matches, axeheads, and woodknives by collecting rotans for Malay traders or by rearing poultry and goats, but in some parts they are better off than the Malays themselves. In Negri Sembilan they dress in silk and own herds of buffaloes, but prefer to stow away valuables in a log in the jungle rather than in a box in the house, perhaps not unwisely. In the Bra, a deep sluggish river full of crocodiles, and on that account avoided by Malay settlers, they actually have planted cocoanut groves and dwelt in the vicinity till they come into bearing, but of working padi swamps, the hall-mark of reclamation from nomadry, I have heard of but one instance. That was in an upland vale in Ulu Pahang, and the year happened to be a dry one, and they hadn't the heart to make a second attempt.

As yet very little has been done by the British administration with the direct object of benefitting and uplifting the aborigines, yet they are potentially, man for man, as valuable assets in the national wealth as the Malays, perhaps more so, since, if fostered, with their habit of living in hilltops, they will gradually fill up the vast tracts between the rivers, whereas a Malay will not dwell away from the banks of a large river or the edge of a padi swamp. And, if civilization be an aggregate of moral and æsthetic rather than of material possessions, they are not wholly uncivilized. Where little touched by Malay influence both sexes wear a loincloth and are highly moral. Nearer Malay centres they wear clothes, use guns, eat rice, and are generally decadent but, on the whole, preserve a somewhat higher moral standard than their Mohamedan neighbours. The children are fully as intelligent as Malay children. Their expression is pleasant and their figures graceful. They are skilled physicians. They clear mountain tops like white men just to enjoy the view. And perhaps they are "Aryan brethren," for an old Sakai pointed out to me the resemblance between "mem," the Senoi word for breast, and "Tuan mem" (corrupted from madam) the Malay appellation of an Englishwoman.

Art. V.—A QUARTER OF A CENTURY OF LAND REVENUE ADMINISTRATION IN MADRAS.

THE crucial test of the success or otherwise of the administration of Land Revenue in India is the recovery of a Province which has been afflicted with a bad famine from its effects. If that administration is based on sound principles, the recovery will, as a consequence of the natural endeavours of the *rayat* to reinstate himself in his former position of ease and such comfort as the lot of the Indian agriculturist allows him to enjoy, be comparatively rapid. If the system under which he pays his rent is harsh,—if, under the idea that he can quickly make up in a good or moderate year the losses he has incurred in the famine of personal property and land, the payment of arrears is strictly exacted from him, he will work on, for work he must in order to live, with, as it were, a millstone of debt round his neck, and in nine cases out of ten has no other employment to fall back upon, but he will probably fall lower and lower, and, losing his position as a landholder, become a labourer for daily wages. It is accordingly proposed to put together in the present article statistics bearing on the point gathered entirely from official sources, to see how the Madras Presidency as a whole comes out of the trial from the time of the great famine of 1876-1877, a period of a quarter of a century, and, if possible, to learn from this lessons useful for guidance in the future. The sources of information referred to are the annual Settlement Reports, the Statistical Atlas, published in 1895, which takes the place of a Presidency Gazetteer, and the papers relating to one of the most modern resettlements of a small typical District, from which may be ascertained the general principles underlying those settlements. The term of 25 years taken is sufficiently long to cause the elimination of effects brought about by accidental circumstances and thus give a fair view of the administration as a whole.

The Madras Presidency contains 22 Districts or Collectorates situated under very varying circumstances, subjected to the influence of both the south-west and north-east monsoons or periodical rainy seasons, and in one part stretched over the whole breadth of the Continent of India near its southern extremity, thus affording almost every example of tropical climate and productions. In one way the fact of being subject to the influence of both monsoons is of a certain advantage, for the deficiency that may occur from that from the south-west is often made up by a fresh supply of rain from the north-east, which comes later in the year, but there are some parts of the country to which the influence of the latter hardly extends. These border on the western range of hills, against which the vapours driven up by the south-west wind strike and precipitate themselves as rain, and then frequently pass over a large tract of country without imparting any moisture to it. In this tract, accordingly, which may be called the Deccan Collectorates, the liability of crops to failure is more common than in the rest of the Presidency, and the gaining of a living by agriculture is consequently very precarious. In order to illustrate this and the opening remarks of this article, let us take the cases of the two Collectorates of Kurnool and Bellary, two of those that were most severely hit by the famine of 1876-77. The area of holdings in the former was 1,212,013 acres and the assessment Rs. 13,04,585, or a little over Re. 1-1 the acre, inclusive of wet and dry lands. In that year remissions for waste land and without crops were granted to the extent of Rs. 5,11,483. The Statistical Atlas only supplies information of the state of cultivation up to 1890-91, but in those fifteen years (inclusive) the area of dry land in ryots' holdings had not recovered itself within about 40,000 acres. In Bellary the area under holdings in the former year, *viz.*, 1,478,298, came in 1890-91 to 1,459,260, that is to say, had not quite risen to its former level, notwithstanding that in 1876-77 remissions of Rs. 9,01,971 were given out of an assessment of Rs. 13,19,655. As a matter of fact it was in Kurnool not till about 1893-94 that the full level of former years was reached, and in Bellary perhaps a year earlier. In the meanwhile what had been the state of affairs with regard to collections and re-

missions of revenue? In Kurnool the remissions for waste and withered crops were as follows :—

YEAR.	REMISSIONS.		COLLECTIONS.	
	Arrears.	Current.	Arrears.	Current.
	Rs.	Rs.	Rs.	Rs.
1893-94	... 791	.....	46,601	15,72,693
1894-95	... 1,555	.....	8,230	19,33,059
1895-96	... 158	.....	2,358	19,15,118
1896-97	... 377	.....	2,523	11,60,360
1897-98	... ..	.....	3,27,138	18,45,026
1898-99	... 368	.....	51,600	18,48,674
1899-1900	... 1,029	.....	24,322	12,31,802
			<hr/> 4,12,772	<hr/> 1,15,08,732

In Bellary they were for the same years :—

	Rs.	Rs.	Rs.	Rs.
1893-94	... 4,877	.....	77,322	16,19,241
1894-95	... 2,647	.....	38,522	18,62,751
1895-96	... 2,082	.....	27,309	19,10,921
1896-97	... 2,228	.....	1,947	7,20,075
1897-98	... 677	.....	4,25,129	19,15,139
1898-99	... 2,865	.....	33,827	19,00,028
1899-1900	... 2,670	25	46,140	18,94,401
			<hr/> 5,34,352	<hr/> 83,40,564

Thus in the one case Rs. 4,12,772, and in the other Rs. 5,34,352 have been collected over and above the ordinary annual demands in the course of seven years. How have these collections been made? Leaving alone the notices of demand, which numbered 380,024 in the two Collectorates, ostensibly merely formal notices, but in reality giving the village authorities power to keep the whole of the *rayats* on the tenterhooks of suspense as to whether they are not the

mere preludes to attachment and sale of property, the account stands as follows :—

Year.	No. of Defaulters.	Personal property sold.	Real property sold.	Of the latter bought in by Govt.	Sold to others.
Bellary.					
		Rs.	Acres	Acres	Acres
1893-94	895	... 1,339	11,367	... 5,412	5,955
1894-95	444	... 1,975	1,359	... 1,312	1,359
			1,312		
			2,671		
1895-96	442	... 845	2,270	... 2,270	3,130
			3,130		
			5,400		
1896-97	167	... 282	1,851	... 813	1,038
1897-98	264	... 2,720	1,440	... 477	903
1898-99	584	... 8,044	6,615	... 2,921	3,694
	504				
	1,088				
1899-1900	709	11,195	12,403	... 3,105	9,298
	881				
	1,590				
Total	4,830	26,403	41,747	16,310	25,437

Thus in the course of seven years there have been 4,830 defaulters in two Collectorates alone. These have had goods and moveable chattels sold of the realized value of Rs. 26,403, worth probably three times as much in addition to their proprietary right in 41,747 acres of land, of which as much as 16,310 have had to be bought in at a nominal price by the revenue authorities on the part of Government because no one was found to bid for them at auction. These lands may or may not be lands that have been taken up as a mere speculation, as Madras men

are in the habit of urging when the fact is pointed out to them, but any land to bring it into cultivation at all requires the expenditure of a certain amount of capital and labour, and it is not to be supposed that the holders of it would deliberately throw this away if the land were fairly assessed and showed any prospect of giving a fair return at the rate of assessment placed upon it.

The two Collectorates mentioned are not the only ones in which this state of affairs exists. Those of Chingleput, South Arcot, and Tinnevely in the course of the last 25 years have had their occupied area of holdings diminished by about $3\frac{1}{2}$ lakhs of rupees. In the annual Settlement Reports there are given returns of the area of land transferred from other heads or taken up, as well as of what has been given up or transferred to other heads. Taking a single year, the last available at present, we find that in the following Districts, which are merely given as a sample of all, the following changes took place:—

	Thrown up.		Taken up.		More taken up.		Less.
	Acres	Assesst.	Acres	Assesst.	Acres	Acres	
Ganjam ...	6,459	13,154	8,679	16,300	2,220	.....
Vizagapatam...	3,713	10,905	5,122	16,105	1,409	.....
Godavari ...	40,045	73,157	80,023	5,69,733	39,978	.....
Kistna ...	94,472	2,22,145	86,481	4,42,264	.....	7,991	
Nellore ...	39,179	56,945	25,113	37,243	.....	14,066	
Cuddapah ...	40,198	36,790	26,913	27,135	.....	13,285	
						43,607	35,342

Thus, although in the first three there were 43,607 acres taken up in excess there were 35,342 less in the other three. In these six Districts in the years 1899-1900 there were 4,799 defaulters, whose personal property, of the estimated value of Rs. 46,318, realized at auction only Rs. 6,566, and of whose real estate of 11,889 acres, assessed at Rs. 18,117—7,131 acres, assessed at Rs. 12,032, were bought in for Government for Rs. 698, an average of a little over 1 anna 1 pie per acre, although the average assessment was Re. 1 annas 9 pies 10. When such have been the losses to the *rayats* from forced sales in only

six Collectorates in a single year, those in the whole of the twenty-two for the 25 years since the famine of 1876-77 must have been simply appalling. From one of the statements contained in the annual report it appears that in the entire Presidency in the year in question (1899-1900) 18,466 acres assessed at Rs. 23,665, were sold for the realization of arrears.

This gives but little idea of the trouble the *rayats* have been put to in the matter. Out of 6,134,242 demand notices that have been issued 406,246 resulted in notices of distraint or attachment and 248,895 in notices of sale of property. The details of actual sales and realizations in six of the Collectorates are given above. It is quite evident from these figures that the average holdings of the people are so small that an ordinary *rayat* cannot hope to get his livelihood out of his own. There were 22,224,414 acres in holdings, for which the revenue demand was Rs. 45,203,924, or an average of just over two rupees an acre and inclusive of waste charged for and water assessment. The actual average area of holdings and that lying unoccupied, though arable and assessed, is not ascertainable from the annual reports, but the periodically published Statistical Abstract gives it at over 12 millions of acres.

When such is the case, when, as shown above, there is in some places an actual decrease from the area under cultivation of 25 years ago,—when there has been levied in the course of seven years a sum of about 9½ lakhs of rupees in addition to current revenue demands in two Collectorates alone,—when in 1899-1900 there was sold in order to collect the revenue in six Districts personal property that realized at auction under Rs. 6,500 (though valued at over Rs. 46,000) in addition to 7,131 acres assessed at Rs. 12,032, bought, in for Government, for want of bidders, at nominal prices and in the whole Presidency about 18,500 acres, and very large areas are annually relinquished and taken up, it is evident that the cause of this great fluctuation, as if the people set no store by their hereditary property in the soil, which in other parts of India is looked upon as so valuable, must be sought for in some circumstances lying deeper than the ordinary

fluctuation in the rainfall, for they occur in good as well as bad seasons. There can be little doubt that it is traceable to the uneven assessment of lands based on the system of classification of soils laid down under the Madras rules handed down from the time of Sir Thomas Munro. The land being distributed among various natural orders of soil, the alluvial, the permanently improved, the Regar (commonly called the black cotton), the ferruginous, and the arenaceous, these are severally subdivided into classes and sorts, to each of which is assigned, as the result of numerous crop experiments, a certain theoretical amount of produce in grain, calculated in terms of standard crops usually grown in that particular soil as that which the several sorts should as a rule produce. For instance, in certain Talukahs or subdivisions of the Masulipatam portion of the Kistna District, the report of the re-settlement of which is now referred to, black paddy (an inferior variety of rice), and *cholam* (millet) in equal proportions were taken as the standard crops in villages of the first and second groups for all soils with the exception of the lowest sort of black sand, and the arenaceous, for which *black paddy* alone was taken as the standard. In villages of the third group *cholam* was the standard crop for alluvial lands and the highest sort of permanently improved lands, and *cumber* for arenaceous soils. For all other soils in third group villages *cholam* and *cumber* were taken in equal proportions. For wet lands in the upland tract white paddy was the standard. Now, taking into consideration the great variety of crop grown in every sort of land, in the first place, it is an entire fallacy to suppose that a fair average can be deduced from any two or three dominant crops to represent equitably the value of all the crops concerned. In the next place, even if a fair average produce of grain could by any possibility be relied upon to give a reasonable valuation of other crops such as cotton or oilseed, or the value of sugarcane could be estimated in terms of white paddy or rice, the prices of the two could only be compared when reduced to the common standard of money, and the prices of agricultural produce would have to be ascertained from hundreds of markets at different seasons of the year varying

greatly under an infinity of circumstances, to average which fairly would be beyond the power of the most experienced Settlement Officer. To carry out this system fairly is, in our opinion, an impossibility. Fairly or unfairly, however, it has been carried out, soils have been classified accordingly, and there can be very little doubt, if the statistics also go to prove anything, that the resulting money assessment on the land is uneven. In favour of the system it is held by Madras men that a *rayat* is in the favourable position of knowing what the assessment of his land will be as soon as its class and sort have been fixed. This appears to us to be exactly the position in which he ought not to be placed, for what is easier than for him to bribe the classes to record his land as of a low order in order to lower its assessment. The unevenness of the assessment which leads to the constant abandonment of old and taking up of new land may with confidence be traced to this, and it is acknowledged in various Settlement Reports that such inequality has not unfrequently had to be remedied, if remedied it could be, by altering the classes of villages themselves. As the amounts fixed on each class and sort of soil, however much it may be said to be based on a few crop experiments, can only be so by guess, the relative values of the crops in the infinitely different varieties of soil to be found everywhere can also only be a matter of guess work, and of very unfair guess work, for under such a system a man who goes to the trouble and expense of manuring his land is put precisely on the same footing as one who sows his field and leaves the rest to nature, thus taxing capital and labour in the former case and not the soil according to its intrinsic qualities. Turning to the money rates imposed on lands in pursuance of the system of classification of soils described, one looks in vain to the abovementioned Masulipatam Report for any real explanation of the reason for adopting them. It is said (paragraph 19) that they were separately calculated for the different classes of villages in the Delta and upland and a comparison is then instituted between two sets of rates proposed by the permanent and the officiating Directors. The former's rates were considered too high by the latter as in several cases exceeding the maximum limit of 30 per cent. of the gross

produce laid down by the Government; notwithstanding this, however, the rates proposed by the former were adopted by the Madras Government, as recommended by the Revenue Board, for the simple reason that they did not see sufficient cause for altering the original classification of the villages and it would be sufficient to adapt the Officiating Director's rates to that original classification. This is a method that saves a great deal of trouble to the higher authorities, but the method is eminently unsatisfactory to those who desire to ascertain the true causes of things and probably accounts for the failure in the administration of the Land Revenue system in the Presidency proved by the figures given above.

In paragraph 20 of the Report it is admitted that there were 222,400 acres of assessed culturable land waste in the four Talukahs comprised in the Masulipatam division, and 240,000 acres unsurveyed and unclassified in addition. The reason given for this omission is that the land would not be required for agricultural purposes for some years to come. In permitting this has the idea ever occurred to the Madras Government that probably when it is time to abolish the whole of the Survey and Settlement Department owing to their other work being completed it will have to be reorganized in order to finish the work now left undone through economical motives? In the annual Settlement Reports, that is, what is called the *Jamabandi* in other parts of India, no statements are given with regard to waste arable and unarable land, but the area of such land in only a small subdivision of four Talukahs goes far to show the existence in the whole Presidency of more than 12 million acres of the former still available for extension of tillage.

With regard to the grouping of villages for assessment purposes of the Masulipatam division no reason whatever is given, it is proposed to classify them into three groups, of which those on the Kollair Lake are put into the third and lowest because access to them is difficult, especially in the rainy season and mosquitoes make residence there uncomfortable and trying. Whether distance from markets for the disposal of surplus produce or variation in climate, the only reasons for discriminating between various groups that ought to

be allowed for in grouping, have been taken into account with regard to the other groups or not is nowhere stated. If there are no clear reasons to be assigned in Settlement Reports for the pitch of assessment proposed or for the modification of that pitch according to the varying circumstances of differently situated groups of villages it really comes to this that Settlement Officers may do exactly as they please and the trouble of making long reports full of irrelevant matter such as that on the re-settlement of Masulipatam might be saved altogether.

The unsatisfactory method of making allowance for the cost of cartage, merchant's profits, and the expenses of cultivation is exemplified in paragraph 58 and the following paragraphs. Because the Tehsildar of Bezwada, one of the four Talukahs included in the Report, states that the total cost of conveying a puttī of rice of 1,000 seers from villages three miles from a canal to the chief markets is 12 annas 6 pies, and that of boat hire on the canal is 8 annas, villages the cost of cartage from which to the canal bank is 4 annas 6 pies are put in the same category with others the cost to which is only 1 anna 6 pies or one-third as much, and a general allowance is made of what is supposed to be 15 per cent. on the average value of the grain, thus giving some villages far more than enough and others not so favourably situated probably not enough. This all results from the practice of assuming averages of figures which in themselves vary largely.

Enough has now been said of the unreliable nature of the data on which the Madras assessments of land to the revenue are based, and their unreliability has been demonstrated by the actual results of the system of administration adopted. How has this state of affairs arisen, and is there any remedy for it? It has arisen from the slavish and unreasoning adherence of the Madras authorities to the crude and antiquated ideas prevalent in the time of Sir Thomas Munro, when but little experience had been gained of the country and the proper methods of management of its land revenue, and this notwithstanding that in the neighbouring Presidency of Bombay, also mostly under *rayatvari* tenure (where the State deals directly with individual holders of land), an entirely different system of classification of land for revenue

purposes had been adopted and succeeded, so that with rare exceptions the whole of the arable land was under occupation and comparatively no waste land was left, in fact everywhere, except in the Province of Sind, in which other causes than improper assessment were at work. Under that system no attempt is made to ascertain the outturn of particular fields, so that there is no necessity to estimate the average prices of produce in order to arrive at the assessment proper for various soils to which an arbitrary rent-produce is assigned or any of the other particulars noted in the case of Madras. The best dry crop soil in a District is found by enquiry and classed at 16 annas, the soil of every field (and, let it be noted, of waste land as well as cultivated) is compared with this, and according to its visible ingredients of more or less sand, stones, salt, etc., is lowered to 15 or fewer annas until what is absolutely unarable at 2 annas is reached, so as to present in a graduated scale the comparative natural fertility of all the soils to be found. It is thus ready for a money assessment, the maximum rate of which is decided on general considerations of the value of agricultural produce past, present and estimated future, after consideration of the effect of previous administration on the condition of the people as shown by increase or decrease of area under cultivation, the difficulty or ease with which the revenue has been realised, and all other circumstances, such as proximity of markets, good or bad means of communication, agricultural skill of the *rayats*, facilities for irrigation, climate, and all particulars bearing on the question of what rent the people are able to pay with ease and have a surplus over with which they can maintain themselves in comfort. The maximum rate for the best soil being thus fixed, those on the inferior soils will fall into the lower rates according to their lower natural fertility, and the several villages that contain them can be classified according to the comparative certainty or otherwise of their production and the facilities and otherwise for the marketing of their produce. The rates being thus calculated on the area, the general effect upon the revenue of the State can be ascertained to within a narrow limit. All these points being fairly set before the Government, the latter are able

with some confidence to issue the necessary orders. Distance from and proximity to markets as well as variation in climate are allowed for in the grouping of villages, so as to put all classes of *rayats* as far as possible on an equal footing. Absolute perfection, of course, cannot be attained to in such matters, but this is at all events preferable to the futile attempt to estimate the actual produce of fields and its money value described in Madras.

There are defects in the system of surveying the land in that Presidency, such as that of not ascertaining the area of unarable land in each demarcated field, and others with regard to boundary marks, which, considering the length to which this article has already run, it would be unadvisable to enter upon here, but they may be glanced at to show how necessary a thorough overhauling of the Madras Survey and Settlement system is. When 40,000 to 50,000 individuals every year have property sold for the collection of the land revenue, and the India Office, knowing this, refuse to take any steps towards a remedy, it is time that the public should be informed of the actual state of affairs. We do not speak without warrant in this matter, for Lord George Hamilton in the last Session of Parliament distinctly declared in answer to a question by Mr. Weir that no interference with the Madras system of revenue administration would be permitted. Every other channel through which reform would be possible being thus closed, there is no other method of endeavouring to bring it about than that of the instrumentality of the public press.

A. ROGERS, .

*Late Bombay C.S., and many years
Settlement Officer.*

Art. VI.—THE PRECESSION, CLIMATIC & DECLINATION CYCLES, THEIR INFLUENCE IN THE FORMATION OF POLAR ICE AND THE EXISTENCE OF NATIONS.

MANY years ago I read in a United States scientific magazine that the climatic conditions of the earth are so constituted that when the present North Polar ice cap has reached its maximum size, the curve of the earth in the latitude of London will be from one quarter to three-quarters of a mile higher than it now is ; that is, that England, Northern Europe, Asia, and America will be engulfed in the sea to that depth. This article had so great an effect upon me as to lead me to make this subject the study of my life.

The first writer who gave a reasonable explanation of the way that ice accumulates at the poles was the late Dr. Croll. But so dominated was he by the immense number of years demanded by geologists of the past generation, that his two books were written to show that only two glacial epochs have occurred in geological time, *viz.*, one 250,000, and one 850,000 years ago, and he denied the possibility of the formation of an ice cap at the North Pole every Precessional Cycle of 26,000 years. Sir Robert Ball also in his convincing little brochure *The Cause of an Ice Age* restricted himself to the lines of Croll's argument. So lame a conclusion never commended itself to my judgment, and my patience was rewarded a few years ago by the publication of a United States geological text-book which showed that the most recent glacial epoch came to an end only 7,000 years ago. As however Croll's theory is correct so far as it goes, I in this paper give it full prominence. It only remains for me to say that this subject has got far beyond the lines of Croll's theory. It now gives a reasonable explanation of the chronology of the Hindu scriptures, and shows that by its means the whole science of physical and political geography, the rise, fall and migration of nations, can be properly understood. Except where I quote my authors, the statements and opinions are my own.

Croll's theory is that there are now eight excess summer days in the Northern Hemisphere and eight excess winter days in the Southern Hemisphere; that the tropical heat at the equator is the cause of the trade winds of the Atlantic, which thus blow the great body of heated sea-water called the Gulf Stream into the Gulf of Mexico. The above preponderance of summer days gives the trade wind a northerly set, which blows the Gulf Stream directly into the shores of England and Northern France, past which the warm stream flows on until it impinges upon the north of Norway up to Archangel and beyond, where, becoming chilled by the Polar ice, it returns as a cold stream past Iceland and the East and West coasts of the island continent of Greenland and, flowing past frozen Labrador, becomes lost on the island of Newfoundland, where it causes the perpetual fogs so dangerous to navigation.

Croll's theory as extended by me to its legitimate conclusion suggests that within a certain distance of time, measured by the Precession Cycle of the equinoxes, there will be eight excess winter days in the Northern, and eight excess summer days in the Southern Hemisphere, that this climatic change will deflect the warm Gulf Stream from the Northern to the Southern Hemisphere, the Southern ice cap now 2,800 miles in diameter will melt and be transferred to an ice cap of possibly greater size at the North Pole, that the release of the Southern ice and its corresponding piling up at the North Pole will cause the sea to leave the South and be attracted to the new ice cap at the North, causing the South Sea Islands, with Australia, New Zealand and Patagonia, to form a new continent, a reappearance of what Theosophists would say was the "Lemuria" of ancient days.

Since Croll wrote his two epoch-making books, *Climate and Time* and *Climate and Cosmology*, the literature of this subject has become extensive. It will, however, suffice to mention two of such books. Dr. Wallace in his *Island Life* thinks that Croll has exaggerated the climatic influence of the doubled eight days so far as the North Pole is concerned, though he admits the correctness of the theory as explaining the existing condition of things in the Southern Hemisphere and at the South Pole. On the other hand, Sir Robert Ball, the late Astronomer

Royal of Ireland, in his *Cause of an Ice Age*, admits the correctness of Croll's theory and gives a new mathematical formula showing how the excess winter days will largely favour the accumulation of ice which, once formed, will not be able to melt during the following summer.

In considering this subject we must not flatter ourselves that, because the equal measure of summer and winter days will not be reached for nearly 5,000 years, therefore the subject has no immediate concern for us. The whole of the Northern shores of the Northern Hemisphere are already in the full swing of the rising sea, which will not cease its ravages until Northern Europe is engulfed, and Holland, Denmark, Northern Russia, Siberia, England, and the Northern shores of Germany and France successively pass beneath the ocean.

Croll's theory was first propounded by Alphonse Adhèmar, a French astronomer, who about a hundred years ago showed in his *Révolutions de la Mer*, that the maximum period of about eight summer days in the Northern Hemisphere occurred A.D. 1248. Anyone with two good almanacks can ascertain that the number of excess summer days is now seven and a half and a fraction, and that this excess is 'slowly diminishing year by year. The counting is made between the equinoxes. The opponents of Croll's theory say that the effect of sixteen days' variation in the cycle can be but small upon the average temperature of England, of say 60°F. They forget that the variation has to be based upon the specific heat or rather coldness of stellar space, which is minus 461°F., and which added to 60° amounts to 521°F. specific heat. A very small percentage of this temperature would amount to 10°F., which deducted from the present average temperature would make England and Northern Europe almost uninhabitable. Her seaports in winter would be frozen up.

This slight diminution of half a summer day has already so reduced the temperature of the North Polar sea as to compel navigators to give up all hope of finding a North-West Passage. A real Polar ice cap has covered the whole of the Greenland continent of the area of 380,000 square miles, equal to a separate ice cap of 700 miles diameter. Recent atlases show the North Pole surrounded by a paleocrystic sea of the further

area of 930,000 square miles, equal to a total ice cap of nearly 1,300 miles diameter. The *Encyclopædia Britannica* states that the sea level of the Greenland shores has in the past century risen fifteen feet, the missionary settlements having been rebuilt inland.

My long residence of forty years in India convinces me that India is steadily getting colder. The cold winter winds extend later into the spring than formerly. My frequent visits to England have also satisfied me that snowstorms and blizzards are of longer duration and greater severity than in my boyhood, and the summers are shorter.

The *Story of Lost England*, recently published, tells in a vivid way how the banking up of the sea caused by the attraction of the Greenland ice cap is only too surely hastening the destruction of Old England, and of the other countries above mentioned. Old Brighton, an island a mile out to sea, disappeared A.D. 1700. Old Hull No. 1, an island at the mouth of the Humber, was overwhelmed A.D. 1350. Hull No. 2 and the peninsula on which it was built was washed away A.D. 1530. Old Cromer was engulfed in 1825, old Harwich in 1830. Dozens of other old English seaports are mentioned by the author, the whole of which have disappeared since A.D. 1250.

Holland being the delta of the Rhine, and not much above sea level, has suffered cruelly from the ravages of the sea. The author states that in addition to the great historical inundations, every seven years there is an inroad of the sea which permanently washes away some portions of its shores. Heligoland is now only one-fifth of its area in recent historic times, and is being rapidly washed still further away since it was purchased by the German Government from England. The author makes no reference to Croll's or any other theory, he only gives the events and their dates. Generally the conditions of the problem will be met by the statement that at the present time the mean sea level in the latitude of London does not rise faster than one foot every thirty years.

I have mentioned the Atlantic Gulf Stream; there is a corresponding one in the Pacific, also a warm stream in the South Seas which has made an enormous gap in one side of the Southern ice cap.

Greenland is the Northern ice cap. Nordenskiöld and Nansen have separately crossed its narrow southern warmer portion, and the former has reached an altitude of 12,000 feet. Its northern portion is wider, colder, and therefore higher, for the height of glaciers varies as the reduced temperature, the lower the temperature the greater the height of the ice cap. As the glaciers continue their advance towards the North Pole, the time will come when they will no longer float but will slowly fill up solid the whole sea-bed from Hudson's Bay to Siberia.

As the sea level rises, the shores of Siberia will be engulfed, and the course of the Gulf Stream will change, one portion of it flowing across Holland and Denmark up the Baltic across Northern Russia into Siberia, the remaining portion flowing as now. The North Polar ice cap will then be surrounded by warm seas flowing from the equator, as is now the case with the South Polar sea. A glance at the North Polar map will show that the northern shores of Hudson's Bay and Siberia form almost a true circle of 2,800 miles diameter, the size of the Southern ice cap. The nearness of the warm seas will cause constant storms, which will fall as snow on the new ice cap, rapidly increasing its mass and attractive force.

Sir Robert Ball, in his *Cause of an Ice Age*, shows that the length of the Precession Cycle, *i.e.*, the time taken up by our North Pole in tracing a conical path in the heavens, is about 26,000 years. The path of the axis of our earth is the projected surface of the cone, while the apparent path of our North Pole in the heavens is the circular base of that cone. He also shows that, deducting the velocity of the orbit of the earth in the opposite direction round the sun (not the velocity of the earth but of the earth's orbit) the length of the climatic cycle of the ice caps is reduced to about 21,000 years. This is the sum total of the information obtainable from astronomical sources. Sir Robert Ball is the only astronomer who gives the additional information about the 21,000 years' cycle.

The length of the Precession Cycle is calculated by astronomers as if the sun's declination were an unvarying quantity, *vis.*, that now observed. This declination is about $23\frac{1}{2}^{\circ}$, say for simplicity of calculation 24° . This makes the radius of the base of the Polar cone 24° . But it is admitted

by astronomers that, at the time of Ptolemy 2,000 years ago, the sun's declination was $34'$ of a degree more than now. In those days stellar observations were made by astrolabes, brass rods with upright wires revolving on a circular brass plane about six feet in diameter. These gave correct results to one minute of a degree. Sir John Herschell gives the maximum variation of the declination to be about 3° . This would increase the radius of the conical circle to $25\frac{1}{2}^\circ$. But though astronomers admit that the declination of the sun does vary as above stated, they ignore this variation in making their precession calculations.

Here comes in Major-General Drayson, who calls himself a mathematical astronomer, in contradistinction to our observational astronomers. He was for many years on the Ordnance Surveys of India and England, and was Professor of Surveying at the Royal Military Academy, Woolwich. He has published quite a number of books on this subject, of which I have two, *viz.*, *Thirty Thousand Years of the Earth's Past History* and *Untrodden Ground in Astronomy and Geology Read by the Second Rotation of the Earth*. He says that the variation in declination is not 3° as stated by Sir John Herschell but is really 12° , *i.e.*, that the radius of the Polar conical circle in the heavens is not 24 but 30° , that this additional 6° gives the centre of the second rotation of the conical circle, and that when this conical revolution reaches its furthest limit, it makes ~~the sun's~~ declination 12° greater than it now is.

As a master in spherical trigonometry he gives the calculation showing that, by adding the above 6° , the single recorded observation of Ptolemy agrees with the many modern observations of the past hundred years, and that by this addition he has been able to eliminate what are called the "proper motions" of many of the stars, to ascertain that these motions are due mostly to the revolution of Greenwich on the spherical surface of the earth, round the second motion centre, and thus to ascertain that, in greater part, the stars are really fixed and not moving across the heavens. He gives many calculations to establish this point proving his results by observations taken from the *Nautical Almanack* correct to a small fraction of a second. He then shows that the sun's declination

varies 12° in the whole Precession Cycle, that it reaches its minimum of approximately 24° about 400 years hence, that its maximum is 36° , and that the total period of the Precession Cycle due to the increased radius of the cone is 31,680 years, not 26,000 as stated by the astronomers.

Here comes in the remarkable deduction made by Drayson, *viz.*, that this increased declination of 36° will in about 16,000 years bring the North Tropical zone up to the latitude of Gibraltar, and the North Arctic zone down to the latitude of Manchester, and that these will then give the alternate summer and winter climates of each year. Hence during the summer a tropical climate and tropical vegetation will prevail over the largely extended Arctic and Antarctic regions of 72° diameter in all the outer latitudes not covered by glaciers, while, for the remaining six months, much of these large areas will be plunged into Polar darkness, uninhabitable by man, and as man could never travel the long distances necessary to escape these sudden and severe winter conditions, the whole of these Northern and Southern regions will be given over to primeval chaos, immense forests, and such swift-footed wild animals as can flee year by year before winter sets in.

No grander geological generalisation has ever been made than this. From it can be deduced the explanation of the discovery of the coal-fields of tropical drift-wood found round the shores of Greenland, the tropical mammoth and mastodon skeletons found in the prairies of N. America, and the same animals covered with fresh flesh embedded in the glacial ice of the Siberian islands and mainland. Both series of facts were doubtless caused by the partial or complete break-up of the last previous Southern ice cap. It follows that in those days man will have to confine his existence to the equatorial belt of the earth, and that the present temperate zone will become in great part uninhabitable or non-existent.

Drayson seems to have no knowledge of Croll's theory; he now ~~here~~ makes reference to it. I will now show how remarkably the two theories fit into each other and make one consistent whole. Drayson shows that the Precession Cycle is 31,680 years long. Sir Robert Ball shows that, when the proper deduction is made for the revolution of the earth's orbit

round the sun, his 26,000 years Precession Cycle becomes reduced to a Climatic Cycle of 21,000 years. I find, therefore that with the Precession Cycle of the increased length of 31,680 years, the corresponding Climatic Cycle is within a near fraction of 24,000 years long.

This last figure is sufficiently remarkable to call for extended notice, *for it is the length of the "Kalpa" plus "pralaya" of the Hindu scriptures.* I am aware that the length of this cycle as given in *The Theosophical Glossary* and in *The Secret Doctrine* is 8,640,000 years, and that a Maha-Kalpa-Pralaya contains 1,000 of these cycles, *i.e.*, 8,640,000,000 years. These figures have always been to me a stumbling-block, and doubtless to many other Western students. Eastern pandits, on the other hand, find delight in these impossible figures, and will listen to no argument tending to prove their incorrectness. But the figures go to pieces on the slightest examination. They are nowhere to be found in the *Vishnu Purana*. A series of multiples are there given in poetical stanzas, which when calculated out in Western fashion make 8,640,000 *divine days* and 8,640,000,000 *divine days*. The commentators have wrongfully presumed to alter the plain meaning of the text by calling a *divine day* a *year*. If then these figures are taken in their natural sense as days of twenty-four hours, and are divided by 365 days, the first figure becomes 24,000 years, the length of the Climatic Cycle which I have deduced from Drayson's *Precession Cycle*; one thousand of these become a Maha-Kalpa-Pralaya of 24,000,000 years, which is of sufficient length in time to satisfy the most exacting geologist. It is sufficient if we call the divine day-years a "blind," intended to draw off criticism until the time was ready for a wise and simple explanation.

No intelligent interpretation has ever been given of the four Yugas or Ages of the Kalpa-Pralaya. I will now show that they are climatic. The year A.D. 1248, I have above shown, contained the greatest length of summer days in the Northern Hemisphere, and was therefore, other things being equal, the hottest year; 400 years hence, in A.D. 2300, will be the year of the shortest declination of the sun. Thus the two cycles are at their maximum of heat within the period of about 1,000 years. This conjunction shows that the period in which we now live has been

divinely ordained to give the largest area and longest period of heat to the North Temperate zone and the smallest area to the Arctic zone in order that Western civilisation may have a long extension of life for its needful development. We may then take it that for 1,000 years to come, though nothing can prevent the enlargement of the North Polar ice cap, and the consequent raising of the sea level between Holland, England and Greenland that up to A.D. 2900 the sun's declination will be much the same as it now is, *viz.*, 24°, after which it will begin rapidly to increase, enlarging the Arctic and Tropical zones, and reducing the area of the Temperate zones in the manner above described.

Let us now go to the East. We see that these two conditions now concentrate the warmth into all tropical countries bordering on the Red Sea, the Persian Gulf, the Indian Ocean, the Bay of Bengal, the South China Sea and the Gulf of Mexico. The North Tropical region is confined to 24° of North latitude. This has been its condition for the past 2,000 years, and will continue for a further 1,000 years. To be exact, let us assume that the first Kali Yuga cycle of 1,200 years came to an end A.D. 1248. The cycle of Kali heat thus began A.D. 48. The second Kali Yuga cycle began A.D. 1248, and will continue for another 1,200 years, ending A.D. 2448, *i.e.*, 545 years hence.

Let anyone who wishes to experience the heat of India stay at Benares for a whole year. In the winter time the air is at freezing point every night, and so cold during the day that it is a pleasure to sit in the sun clad in a thick English overcoat. But after March the climate suddenly changes, so that 105 and 95°F. are the ordinary day and night temperatures. Why? Because the snow on the sub-Himalayan slopes, 200 miles distant north, has by that time melted, and you feel the heat in all its rigour. It has been mercifully ordained by Providence that India projects like a triangle into the Tropical zone, that its base is in the eternal snows, and its two sides are immersed in the comparatively cool sea, otherwise the country generally, like that of Rajputana, Sind and Baluchistan, would be a waterless desert, as is the Sahara, Arabia and central Persia.

Let us change our *venue* to the India of the Satya Yuga, the Age of Truth or Righteousness. The temperature is at present the specific heat of minus 461° F. ; plus 80° , the average heat of India, total 541° F. : the summer heat, which is now concentrated over 24° of latitude, will then be diffused over 36° , *i.e.*, each place will then receive only two-thirds of the heat now experienced. The sun's winter declination will then extend for the average of India (say in the latitude of Bombay), to 55° S. Wheat now grows only north of 23° N. latitude, and as a winter crop. It will then grow freely all over India, and as a summer crop. No one has at hand the meteorological data upon which the calculation could be made, but it is easily conceivable that the climate of India will then be no hotter than Italy now is, and that the lowered temperature will give such abundant rain as to make physical labour a pleasure reaping abundant profit, instead of as now a pain and sorrow, as much as possible to be avoided. The surplus heat will increase that of the lower Temperate regions, and also of the new Polar cap in the summer, causing the moisture from the seas to fall almost continuously on the ice as snow.

The lengths of the four Yugas are in the proportion of 1, 2, 3, and 4, so that the Satya is four times the length of the Kali Yuga. The explanation of this may be that in the total period of 2,400 years the temperature in the Tropics will have become so materially reduced as to make work in the sun bearable for the remaining period of 21,600 years. If this theory is correct, it follows that the ancient Greeks could have had no personal knowledge of a Golden Age. What they had was tradition from the then North Tropical zone, from their common ancestors, the Fathers of the Greeks, Persians and Indo-Aryans. It also follows that this Golden Age can belong to Tropical countries only, and is contemporary with a period of intense winter cold and misery alternating with Tropical summers in Temperate zones the inhabitants of which will have to flee for warmth and food to the countries bordering on the Mediterranean, Black, Caspian and Aral Seas, which will then form one stretch of sea, to which probably the Dead Sea and the Valley of the Jordan will be added.

As the Climatic Cycle of the Puranas has its Kalpa and Pralaya every alternate 12,000 years, beginning the quarter cycle previous to A.D. 1248, so the Declination Cycle will intensify or modify the Climatic Cycle every 16,000 years, beginning with A.D. 2300. Three Declination Cycles will thus nearly coincide with four Climatic or Yuga Cycles and their conjunctions and oppositions will cause an infinite variety of climates in the ages to come.

The United States geologists state that the last previous glacial age came to an end 7,000 years ago. They base their calculations upon the known rate of recession of the Niagara and Missouri rivers since their Ordnance Surveys were begun, and the distance of these recessions from the last glacial markings. That date is coincident with Noah's Flood, which occurred on the break-up of the Northern ice cap about B.C. 5100. This flood was of course universal over the Northern Hemisphere. But the physical features of the earth confined its effects practically to the countries bordering on the Aral, Caspian and Black Seas. When it debouched into the Mediterranean its force was spent, except for a local flooding of the Delta of Egypt. If the next flood bursts at the same period in the cycle, which by no means follows, it will come 5,000 years hence at the break-up of the Southern ice cap. But there may be many partial previous floods.

The last Northern ice cap reached its maximum B.C. ~~10750~~. At that date the Declination Cycle had only reached 3,000 years from its maximum, so that the sun's declination would then be about 35° , and the ice cap would be very large. Hence the reason why, in the youth of the world, the fertile countries and great empires were grouped round the Caspian and the richly inundated lands of the lower Tigris and Euphrates, as also in America round the Gulf of Mexico.

The Climatic Cycle has two periods of 12,000 years each. The warmth or coldness of these periods varies according to the angle of the sun's declination. (1) Our present climate we know. In A.D. 1248 there was no large ice cap on Greenland. A genial climate then prevailed in Greenland, Iceland and Labrador, which permitted the growth of corn crops. The period of

maximum heat forms the junction of the two Indian Kali Yugas. The Kalpa ranges a quarter cycle on either side of this maximum. (2) With eight additional summer days in the North, and the sun's declination at 36° , the Arctic zone would come down to Manchester, there would be a permanent ice cap of moderate size, a tropical summer climate in those Polar countries not covered by ice, but these would be uninhabitable by man. This climate would in N. Tropical regions form the Golden Age of moderate warmth in summer and sharp cold in winter and would be in the Indian Kalpa. (3) Our present climate reversed, *i.e.*, with eight fewer summer and eight more winter days in the North Hemisphere, with the sun's declination as now, would cause the formation of a large ice cap at the North Pole, but, owing to the proximity of central Asia, Europe and America, not as large as the present Southern ice cap. This period would form the Kali Yuga portion of the Pralaya of India, the period of so-called rest, in which, notwithstanding, climatic conditions would favour vigorous existence in North Tropical and North Temperate regions. (4) Our present climate reversed, *i.e.*, with eight fewer summer and eight more winter days in the North Hemisphere, but with the sun's declination increased to 36° , bringing the North Polar zone down to Manchester, would cause the formation of a very large ice cap at the North Pole, possibly larger than the existing South ice cap. The sea level would be raised so high as to compel migration to the new Lemurian continent. This period would for India form the Satya Yuga portion of the Pralaya, when all creation is in the North Hemisphere supposed to be sleeping its long sleep under the sea.

The Precession Cycle of 24,000 years can therefore be legitimately used in ascertaining with reasonable precision the time occupied in the formation of the Pleistocene and other recent geological systems. These are known to be made up in many places of glacial drift intercalated with marine deposits.

Why is it that no past records of man are obtainable before the present Climatic Cycle? Not because man was not then living, but because from the considerations already advanced, no country has had a continuous existence of more than 6,000

years. If in the Tropical zone, it failed to adapt itself to the ever-varying climatic conditions, and had to make way for younger and more vigorous races. If in the Temperate zone, it was over-whelmed by glacier, or sea, or both. Even in Egypt the present Delta has remained flooded for thousands of years, new deltas have formed, and new races of kings have arisen to govern in the Nubian hills to the South. For with the exception of the rare Noah's Flood, the climatic changes have been so gradual as not to be noticeable from one generation to another. The only everlasting records are the Assyrian burnt clay tables, and they only so long as they remain buried under the mounds, and the inside surfaces of the Egyptian Pyramids. The hieroglyphics will remain intact in Egypt only so long as no rain falls, but before the quarter cycle ends the climate of Egypt will change, the air will no longer remain dry, but there may be a rainfall as heavy as in Palestine. And where rain falls, all masonry will crumble to dust. The shock to the fibres of the stone caused by the blow of the metal chisel is the first step towards its eventual destruction. All records in cities will in time be covered by glacier, or sea, or earth mounds or blown sand. Nothing can remain permanent in this world everything is subject to change.

In conclusion may I, without offence, make a brief reference to the date of Shri Krishna. "He was killed by a stray arrow at Somnath on the south-west cape of Kathiawad, 5,000 years ago, at the commencement of the Kali Yuga. In 427,000 years more the Kali Yuga will come to an end." The total of these two periods is 432,000, which divided by 360 days makes 1,200 years, the real length of the first Kali Yuga. This first Yuga is thus stated to have ended 3,800 years ago, and the second Kali Yuga 2,600 years ago, which is incorrect. The date of Shri Krishna's death is doubtless correct, but the tacking on to it of the Kali Yuga is a device of priestcraft, done to increase the wonderment of devotees.

Since the above was in type, I have read Mr. B. G. Tilak's new Book *The Arctic Home in the Vedas*. This book adduces so many proofs drawn from the Vedas that the original home of the Aryan Race was situated in the Arctic Circle, that

it is worthwhile to see how far the theory I have above developed will fit in with Mr. Tilak's facts.

I therefore readily withdraw the statements I have made in the earlier part of this paper that, in those days life in the Arctic Regions was impossible for civilized man.

As Mr. Tilak states, the six months of darkness was only experienced at the North Pole, and this darkness was greatly relieved by the "Aurora Borealis," which continuously flashed its radiant glories during bright clear weather. Then also the moon was above the Polar horizon for half her monthly revolution, diminishing to a small period of time at the Arctic Circle. The stars were brighter there than elsewhere on the earth's surface. The prolonged dawn and sundown also, as he says, greatly reduced the period of otherwise total darkness.

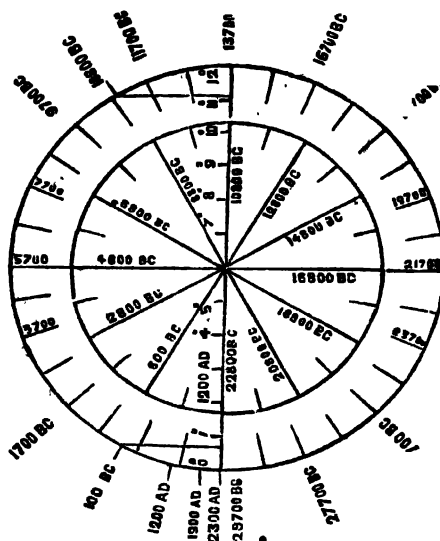
Mr. Tilak has many references to, and quotations from, the Great Bharata, which of course is not Vedic, as illustrating the tradition of the Arctic home, which remained after the Aryans had arrived in India.

There is one passage, Chapter VIII, Verses 24 and 25, in the Bhagvat Gita, one of the books of the Great Bharata, which has not been referred to by Mr. Tilak, and which will help to an understanding of the tradition of the Arctic home.

The late Mr. Justice Telang, in his translation and commentary, acknowledges that he and the commentators generally do not know what the above passage means, especially the words "fire and smoke." Sir Edwin Arnold in his Song Celestial, and Mr. Davies in his translation in Trubner's Series omit it altogether as an interpolation, for the same reason. But if *Agni*, fire, conflagration, is translated "Aurora Borealis," and *dhuma*, smoke, vapour, is translated "mist" or "snowy fog," the passage becomes luminous in illustration of Mr. Tilak's theory.

First, let us consider our present climate reversed, *i. e.*, with eight fewer summer days and eight more winter days in the Northern Hemisphere, and with the sun's declination increased to 36° , being the fourth cyclical condition just previously described. This condition is exhibited in the accompanying

diagram, in which for convenience only complete centuries of years are shown.



The outer circle shows the Declination Cycle, in which the minimum declination is $24^{\circ} + 0 = 24^{\circ}$ which takes place 400 years hence, while that of half a degree larger took place in 100 B.C. The declination of $24^{\circ} +$ a little more than $11^{\circ} = 35^{\circ}$ and a fraction took place 10800 B.C., which added to 1200 A.D. makes half the complete climatic cycle of $10,800 + 1,200 = 12,000$ years. This climatic cycle is shown in the inner circle. Thus in the year 10800 B.C. the sun was nearly at its maximum declination of 36° . This declination of 35° brought the Arctic Circle down to 55° north latitude which was that of the north Coast of Ireland, of Newcastle, in England, the south boundary of Denmark, *i.e.*, the north boundary of Schleswig Holstein, the South Coast of the Baltic, Königsberg, in Prussia, and Moscow, in Russia. St. Petersburg being in N. Latitude 60° would be 5° within the Arctic Circle. In Asia one half of Turkestan and the whole of Siberia along the line of the new railway across Lake Baikal up to the foot of the Northern slopes of the Great Altai Range

would be also within the circle. In Canada, British Columbia, Manitoba and Winnipeg would be just outside the circle, while nearly the whole of Hudson's Bay and Labrador would be within it.

The sun would then be 11° higher in the heavens during the summer months than now, *i. e.*, at the North Pole the declination would at midsummer be 35° , while at the limit of the Arctic Circle it would be 70° . As during the prolonged Arctic summer the sun would remain above the horizon for a period varying from one day at the circle to six months at the pole, it is easy to conceive that during this long period over a so largely increased area the heat would be intense, its measure being the amount of heat abstracted from the present tropical zone by the more rapid transit of the sun over each tropical degree than is the case now.

But we have now to consider how this Arctic heat would be modified by the varying number of the total summer and winter days in the year. At present there are eight more summer than winter days in the Northern Hemisphere, being a climatic excess of sixteen warm days as compared with the reversed conditions which obtained 12,000 years ago, when there were eight fewer summer than winter days. This difference as already stated in this paper would largely favour the accumulation of winter ice, which, once formed, would not be able to melt during the succeeding summer.

Mr. Tilak is wrong in his assumption that the climate of the long winters would be genial, just the reverse, for the reason that at the winter solstice the sun would then be vertical over the 35th degree of South Latitude, instead of the 24th degree as now, *i. e.*, that much further removed from the Northern Hemisphere. The sun of course would travel over the 70° in the same time as now taken in travelling 48° . Mr. Tilak's dawn of one or two months would be extremely cold, quite as cold as that of mid-winter, for south winds would be impossible during this period, and the north winds would blow direct from the ice cap. But the sun-down of one or two months would be genial, the sun being near the horizon, and the south winds persistent during autumn. The south wind would continue until the chimney of tropical heat

had all escaped into the upper atmosphere. Thus the extreme cold would not be prolonged beyond four months, up to the time of the re-appearance of the sun.

The increasing accumulation of ice at the North Pole and in the glaciers of mountain ranges all over the Northern Hemisphere would, by direct attraction, raise the sea level in this Hemisphere, a process which, as already stated, is going on in England and elsewhere, and which will be suddenly and permanently intensified when the North Polar ice sea becomes anchored to the bottom of the ocean, and so becomes a true glacier. These conditions will be reversed in the Southern hemisphere, where the tropical heat caused by the sun's increased declination assisted by the climatic excess of sixteen excess tropical days as compared with present conditions of sixteen excess cold days of low declination conditions, will rapidly melt the Southern Ice Cap, the water of which will gravitate northwards, the sea level will fall and uncover the South Sea Islands, making them, where the water is shallow, into new continents. The new conditions will at first overwhelm only the lands near the Arctic Circle, now uninhabitable. Such as the Tundras, the vast plains of Northern Siberia, always frozen, even in summer. The remaining lands as the cycle progresses, becoming tropical in character, wheat will in due time grow all over the Arctic lands not covered by ice, and during the severe winters the layer of snow will protect grass and forest lands from killing frosts. Thus as wheat would grow all over the Arctic Circle on the bottom lands not covered by glaciers, man would by industry store up sufficient grain for himself for twelve months, and hay and straw for his cattle for six months until the new sun, rising above the horizon, melted the snow and quickened the grass into new life. The tropical climate enabling trees to grow everywhere up to the verge of the glaciers, pine forests would be abundant, and the wood fires in the houses would give light as well as warmth in the wood-built huts, as also the extremely acrid pyroligneous acid smoke, which appears to cause no injury to the eyes of those accustomed to it.

Those meteorological conditions prevailed in the Northern Arctic zone 12,000 years ago. Then commenced a double change. The continual reduction in the sun's declination

tended to remove the tropical conditions in the Arctic Zone, while the increased number of summer days and reduction of winter days tended to introduce temperate conditions into the Temperate Zone. Thus in the year 4800 B.C. had arrived the period when the number of summer and winter days all over the world was equal, and the sun's declination had become reduced to $24^{\circ} + 5^{\circ} = 29^{\circ}$. In the year 5700 B.C. the sun's declination was $24^{\circ} + 6^{\circ} = 30^{\circ}$. It is a notable fact, established I think by Sir Robert Ball, that polar ice cap conditions can only continue when the ice cap is surrounded by water, so that the sun may have full effect in causing the storm clouds evaporated from the warm ocean to fall when chilled as snow. Hence the more tropical the heat, the larger will be the ice cap, always provided that there are prolonged winter conditions for its consolidation. But when the reduction in the sun's declination tends to lessen the tropical heat, less snow will fall, which will not be in sufficient quantity to make good the loss caused by the continual flowing down of the ice. This new condition of things will be accelerated by the fewer number of winter days and the greater number of summer days, so that about the year 4800 B.C. the equinox of the cycle, the new conditions would commence to work with the greatest intensity.

During this period the reverse conditions would prevail in the Southern hemisphere, and cause the accumulation there of a new ice cap, which would attract the sea from the North to the South hemisphere and cause the floating portion on the edge of the slowly melting Northern ice cap to hang in unstable equilibrium above its proper centre of flotation in the sea. This condition of things is necessary before a world flood can take place. The ice cap, with its overhanging circumference can thus be called a girder, the overhanging portion of which is the cantilever of the girder, e.g., the Tay Bridge. Referring to Molesworth's pocket-book of Engineering formula, "Strength of rectangular beams, one end fixed the other loaded" $W. = K. B. D^3 \div L$, I have ascertained that the strength of artificial ice K., in the centre of a beam 12 inches long the ends being supported = 10lbs., and a fraction per square inch. Highly compressed polar ice has probably greater strength. Here then we have a simple engineering problem in which the

moment of fracture, the weight of that portion of the height of the glacier above its proper centre of flotation becomes greater than the moment of resistance, which is one-fourth of 10 lbs per square inch multiplied by the square of the whole depth of the glacier in inches, divided by the length in feet up to the centre of gravity of the overhang. As an ordinary thickness from top to bottom of a southern glacier is 1,000 feet or 12,000 inches, the square of this depth is 144,000,000 square inches. Ordinary icebergs, *e.g.*, from the Greenland glacier, being limited in width, are broken away during storms and by the North current before any difference in flotation has had time to establish itself. But postulate an ice face 3,000 miles long on the Siberian Shore, and a difference in level of flotation of 100 feet or more, and you have all the conditions of a problem which may devastate a continent. That glaciers do so fracture we have on record in, I think, Ross' voyage along the Southern ice cap, in which he mentions that during the frequent storms the glaciers were heard to break away with terrible noise comparable only to the loudest thunder-claps. These are fractured, without causing mischief, by a storm wave, because the Southern flowing glacier has had time to accommodate its slope to the slight fall in the sea level now in progress.

But in 4800 B.C. the Southern ice cap was increasing in size, and by attraction rapidly reducing the sea level in the Northern hemisphere. Thus, though ordinarily, the frequent storms will break away the glacier before it can cause mischief by falling, a time may come at or about that period when, after a series of years of cessation from severer storms, the overhanging glacier may break away along a large portion or the whole of the circumference of the polar ice cap, the storm wave and flood thus set in motion rushing away between the mountain ranges from Northern Europe and Siberia, and concentrated in a narrow area into an enormous bore along the Black Sea and the Bosphorus, overwhelming the civilized world of Asia Minor.

After the flood, or even without a flood by the continual breaking away and reduction in area of the ice cap, the sea level being permanently reduced, semi-tropical conditions still prevailing, with a declination of $24 + 5^{\circ} = 29^{\circ}$, the fall in

the sea level would throw many thousands of additional square miles into cultivation, and thus make it possible for the population to increase. But in the course of centuries the reduction in the sun's declination would make civilized life impossible in the Arctic and North temperate zones. The failure of the crops and pastures would cause those in the Arctic lands to press upon those in the temperate zone. Then the Aryan of the Vedas irrupted into India and Persia. Later on the Gauls irrupted into Galatia in Asia Minor and into Europe, the Scythians into Kathiavad in India, the Franks into Germany, the Visigoths into Spain, the Lombards into Italy and the Huns into Hungary. Still later we have the irruptions of the Moguls into India, the Manchus into China, the Tartars into Russia and the Turks into Asia Minor and Europe. All these Asiatic races were driven by the stress of climatic conditions to abandon their homes in the North and flee Southward. Now that the cycle of fewer summer days in the North is beginning to tell, the temperate zone is feeling its effects. The Northern hemisphere will continue to get steadily colder from this cause, until, more than 3,000 years hence, the sun's declination becomes one degree greater than now, and so will begin to infuse a little of the Indian tropical warmth into Temperate and Arctic regions.

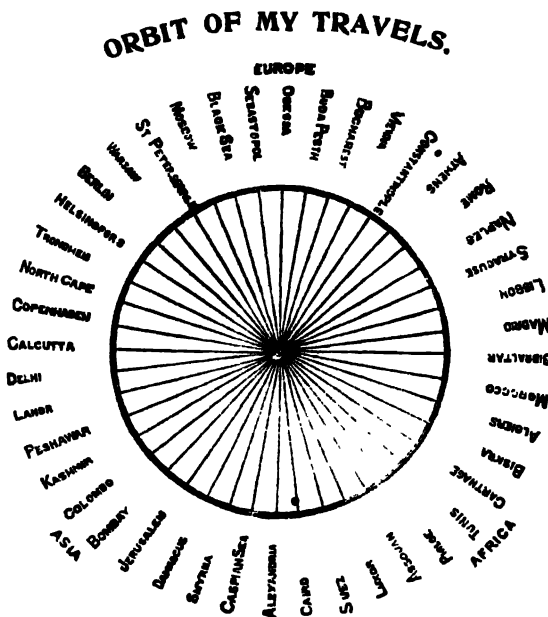
Thus the climatic question has always been a Political question, the irruption of nomadic Asiatic races into the South of Asia and into Europe. Europe has learned how to stem the advance and throw back the irruption of these races. Really their advance has been stopped because none are left. Their country from want of rain has become a desert of sand. Were rain to fall in plenty, Central Persia, Tartary and the desert of Gobi would again become fertile and blossom as the rose. The present climatic question is that the populous countries of Northern Europe will have to face the necessity of migrating Southward. So long as the Gulf Stream makes their wheat, oats and rye grow they will stay where they are, but outside the limits of its genial warmth, where their corn will no longer ripen, or the rainfall is so deficient that famines are over frequent, migrate they must. So long as sufficient fertile land is available in the South, well and good ; but where there is a

famine of land, the weakest will go to the wall. The difficulty will probably be got over by the weaker peoples immigrating peacefully into foreign countries, as the Swedes, Germans, Russians and Italians are now doing into North and South America, changing their nationality in the process.

It is not needful that I should go in detail into the second of the four cycles alluded to earlier in this paper, *viz.*, the excess of eight summer days in the Northern Hemisphere as now, with the sun's declination at $24^{\circ} + 12^{\circ} = 36^{\circ}$. Such a cycle would be a Satya Yuga, a Golden Age indeed. With such conditions there would be no ice cap at the North Pole nor on Greenland, nor glaciers anywhere in the Northern Hemisphere, except of the smallest dimensions. The climate of the Northern Hemisphere would approximate to what is by astronomers belived to be the present climate of Mars, *i.e.*, the thick layer of winter snow all over the Northern Hemisphere would melt soon after the sun crossed the equator at the vernal equinox. But it is just this climate which was experienced in the Southern Hemisphere 12,000 years ago, and will again be experienced there 12,000 years hence. In that continent, however, all this is theory, no investigation like that of Dr. Sven-Hedin in Tartary, and of the Pyramids and Tombs of Egypt and Nubia is possible, because the attraction of the Southern ice cap has buried the Southern Continents under sea water, always excepting of course Australia and New Zealand, Argentina and South Africa. The wonders of the Southern Hemisphere will only come to light 12,000 years hence when the sea flows off and exposes the buried continents to view.

DAVID GOSTLING.

Art. VII.—TOURS AND TRAVELS.



AT page 274 of my "Life-Memoir," printed for private circulation, 1899, I printed two outline sketches:

I.—“Orbit of my Life-Studies.”

II.—“Orbit of my Life-Duties and Interests.”

There remains a third :

III.—“Orbit of my Life-Tours and Travels.”

In 1841 I first crossed the sea, at the age of 20, and made a tour in Holland and Germany, and until the year 1892, when I was 70, I seemed to have been ceaselessly on the tramp, in the last quarter of a century selecting my Orbit of travel each Autumn in Europe, Asia, and Africa. I deliberately left America and Australia out of my Orbit, as there was nothing *ancient* or *historic* to be studied in those Regions.

In 1842 I left England, and traversed France, Switzerland, and Italy to Rome. There were no Railways then, and our journey was performed across the Alps and Apennines in a post-chaise, with reliefs of horses at certain stages, and we rested at night in such miserable hotels as would not be tolerated now. From Rome I made my way to Naples, went up Mount Vesuvius by the old-fashioned paths, and on the 6th of January, 1843, embarked in a steamship for Malta and Alexandria, on my first visit to India. The Overland Passage had commenced a few years previously. My plan was to catch the first steamer, that had ever gone from Suez to Calcutta. However, it was delayed in its passage round the Cape of Good Hope from England to Suez, and I had to wait a month at Cairo, which I much enjoyed, visited the Pyramids, etc., and traversed the Desert to Suez on the back of a donkey; the journey occupied two days and two nights, and the accommodation was bad enough. At Suez I found the Calcutta steamer ready, and passed down the Red Sea to Aden, Ceylon, Madras, and reached my destination in safety and comfort on March 23rd, 1843.

I stayed in Calcutta from that date to 1st May 1844, for the purpose of advancing my knowledge of the Indian Languages, and then proceeded to the Northern Provinces to the station of Ambala, passing along the bed of the River Jumna: my conveyance for the whole distance was a palanquin with eight bearers, and occupied seven weeks. In the same year I visited Simla, and other Hill Stations in the Himalaya, and traversed the whole Region between the Rivers Satlaj and Jumna in my Winter-tour. The year 1845 was closed by the Satlaj Campaign, and the Battles of Ferozshahr and Mudki. It was a new and unexpected feature in my life, to hear the sound of artillery and musketry and to hear the cannon roaring in my vicinity, and see the plain sprinkled with dead soldiers. In the year 1846 I was present at the great battle of Sobraon on the River Satlaj, and crossed with the victorious Army which captured Lahór, the Capital of the Panjáb.

I closed the year in my quiet District of Hoshiarpúr, between the Rivers Satlaj and Beas, at the foot of the range of the Himalaya: there I spent, almost entirely alone, three happy years, 1846, 1847, 1848. In 1849 I was transferred to my old

District, Ambala, and then started on a trip to visit every District in the newly conquered Panjáb Province, while in 1850 I proceeded on a tour all round the far-famed Valley of Kashmir, after which I dropped down the whole length of India in a sailing-boat on the River Indus and its affluents, embarked in a steamer at Kurrachi, and reached Bombay in January, 1851. I embarked by boat on board a steamer for Suez, and travelled by land to Cairo and Alexandria, whence in an Austrian steamer I made my way to Trieste, and thence by coach to Vienna, Dresden, Cologne, Antwerp, to Dover, London, and my home at Windsor, which I reached on my 31st birthday, after an absence from England of seven years duration, and nearly entirely alone the best part of that period amidst my subjects in India, whom I dearly loved, and whom I taught to love and obey me by enforcing our Panjáb maxim :

“The iron hand in the velvet glove.”

“Suaviter in modo, fortiter in re.”

In 1851 I visited my own people and family homes in England, besides making my first excursion to Paris. Then on January 3rd, 1852, I started across France to Marseilles, by steamer to Genoa, and by coach to Milan and Venice ; crossed over to Trieste, and went on board the steamer to Corfu, circumnavigated the Peninsula of the Morea, and landed at Athens, thence by steamer to Smyrna in Asia Minor, crossing the Archipelago, passing under the Coast of Troy, through the Dardanelles into Constantinople ; after a week's visit retraced my steps to the Archipelago, and steamed along the Coast of Asia Minor to the Island of Cyprus, and landed at Beyrut. My first tour in Palestine lasted from February 17th to April 5th, and included the whole country. As was my practice then, I hired horses and a guide, and travelled quite alone, living among the Natives, putting up in the houses of the humbler classes, and using the Arabic Language. The tour was most delightful, and included Balbek, Damascus, and the Dead Sea. By a singular chance I entered Jerusalem on my birthday. Arriving at Alexandria I spent Holy Week in quarantine. On my release I pushed up the Nile to Cairo, paid a second visit to the Great Pyramid, and proceeded to Suez in the newly established horse-vans, embarked on board

a steamer, and reached Bombay on the 6th of May. From Bombay I took the mail-cart to Agra, in the North-West Provinces of India, passing through Rajputana, and thence by carriage-dawk down the valley of the Ganges to Benares, which I reached on June 24th, and settled down to my official work. There I resided till October 8th, 1852, when I migrated to my new District at Banda in Bundelcund, where I lived three solitary years with the people. I left Banda, to which place I was deeply attached, and made my way in a country cart in a slanting line through Central India to Bombay, where I arrived on March 16th, 1855, and at once embarked on a steamer for Suez, which I reached on April 3rd, crossed the Desert in light carts, reached Alexandria, embarked on board a steamer for Trieste, and made my way home to London on the 21st April, 1855, where I resided till December 21st, 1857.

During my three years furlough in England I paid visits in several English Counties, and in August, 1856, set out on a tour in Holland, Germany, Switzerland, and Italy, visiting Rome for the second time, returning to England on November 15th after a most enjoyable time. The news of the Indian Mutiny on May 10th, 1857, burst upon us, and all my plans for the future were altered by receipt of an official order to return at once to India. My home at Banda had been burnt to the ground, and all my property stored in the house had been plundered by the Rebels. I started on December 22nd from England on my third journey to India, travelling *via* Dresden and Vienna to Trieste, embarking there for Alexandria, across the Desert to Suez, and by steamer round the Island of Ceylon to Calcutta, which I reached on January 28th, 1858, and fell again into harness. I made an excursion to Jessore in Lower Bengal, and left Calcutta by dawk-carriage for Benares, reaching Allahabad on March 4th. Here I witnessed the ceremony of the first Railway being opened in North India to Cawnpore; and being summoned by my old Master, John Lawrence, to Lahór, to fill the vacant post of Commissioner, I took the hazardous course of plunging in my dawk-carriage through the Districts in rebellion from Cawnpore to Agra, and thence to Dehli: it was a fearful risk, but I

accomplished it, and arrived at Delhi on April 16th, and pushed on to Lahór, which I reached in safety on April 22nd, 1858, having been about four months on this voyage.

I remained the whole of the years 1858-63 as Commissioner, or Chief Executive Officer of the five Districts of the Lahór and Amritsar Province. In the Summer months I used to proceed up to the Himalaya Mountains to the Hill Station of Dalhousie, where I spent about three months. In the Winter I spent some months at Lahór, and during the rest of the time moved my camp about my five Districts, and disposing of local business with my District subordinates. In my former appointment I was only in charge of a District, and my tour was in a narrower orbit, but my duties then went more in detail, and I lived in closer touch with the Native inhabitants, but it was a delightful life, and the aspect of the country beautiful. The mode of travelling was called Camp-Life, and my tent moved daily from town to town, being carried by camels, while I rode on horse-back, or elephant-back, and the area traversed was very large.

In 1864 I again returned to England, travelling from Lahór by dawk-carriage, and Railroad, for the means of locomotion had improved. At Calcutta I embarked for England by steamer to Suez, across the Desert in light vans down the Nile to Alexandria, and by steamer to Southampton, which I reached on April 3rd, 1864. On September 21st of the same year I travelled back to India, across France to Marseilles, to Alexandria, Suez, round the Island of Ceylon, to Calcutta, which I reached on October 29th, 1864: here I remained as a Member of the Legislative Council of India till April 24th, 1865. I thought that my term of service in India, and my journeys backwards and forwards, were finished, but the Lord had allotted a fifth journey to, and a fifth return from, that Country.

Yielding to the advice of friends in India, and the tempting offer of high appointments, I was persuaded again to return to India, and complete the short time remaining of the term of service entitling to a pension. On February 24th, 1866, I started from Dover, Paris, and Marseilles, and thence by the old route so frequently traversed, and reached Calcutta on 31st March.

A high official post awaited me at Allahabad, in my old home of the North-West Provinces, as Financial Commissioner, and I had during my short occupation of the office some charming tours over the beautiful districts, an entirely new region to me. On the 10th of August my final blow fell on me, and I hurried to Calcutta and embarked for Southampton, which I reached on January 17th, 1868. I had completed my service in India, but not fulfilled the required number of years of residence, and I suffered accordingly.

After two years' cessation from Travel or Tour I resumed the pleasure in 1870, and visited Worcestershire and Wales, which were quite new countries to me, and I had to accustom myself to a totally different environment from that to which I had been used in India, and to a certain extent in Foreign European Countries. It was expedient that I should make myself geographically acquainted with my own native land, of which I was very ignorant, and so in 1871 and 1872 I visited different countries, notably Cornwall, including Land's End, and the Scilly Islands, and in 1873, 1874, 1875, I made a complete tour of Scotland as far as John o' Groat's House, and Ireland in every part. But in 1875 the time had come for crossing the seas, and in April I paid a visit for a few weeks to Paris, and in August and September I attended my first International Oriental Congress on the Continent, and proceeded to St. Petersburg, through Denmark, Sweden, and Finland. I returned through Poland, Germany, and the Netherlands. This woke up all my slumbering taste for Foreign Travel, and settled my fate for the next fifteen years.

It must be understood that my tours on the Continent were not the mere carrying out of the Route Plan of a Cook's party, by which a cluster of strangers were conveyed, in a really admirable way, from Capital to Capital, and Country to Country, until the area laid down is traversed, and the money paid is exhausted. My chief tours were for some specific object, such as a Congress, Geographical, Oriental or Literary, where the Scholars of Europe in some particular branch assembled, friendships were formed, information interchanged, and wonderful pleasure derived. In 1887 I made a tour through Switzerland, Tyrol, Austria, Hungary, and Germany.

In 1878 the Oriental Congress was held at Florence, and I attended it, passing through Paris and North Italy, returning by Venice and Turin. It occupied forty-seven days.

In 1879 I made a tour through Italy to Florence, Rome, and Naples. In 1880 I made a tour through the Kingdom of Spain and Portugal, visiting all the places of note: it occupied forty days. In 1881 I traversed Italy to Rome, Naples, and across the Apennines to Brindisi, where I embarked, circumnavigated the Morea, and landed at Athens. Thirty years had elapsed since my last visit, but I returned to the well-known objects of interest with the same undying love. Jerusalem, Rome, and Athens stand in my interest above all other cities of the world.

In October, 1882, I paid my long-desired visit to North Africa, on the Coast of the Mediterranean. From Marseilles I took steamer to Algiers, proceeded by land to Constantine and Biseria in the Desert, took steamer to Tunis, visited Carthage and the Island of Sicily, made a tour of the interior, went up Mount Etna, thence by Naples and Rome worked my way Northward through Italy, and Germany to England.

In October, 1883, I visited the cities of Holland, and travelled by railway to Odessa, where I embarked for Sebastopol and Batum on the Black Sea, at which place I took train to Tiflis in Trans-Caucasia to Baku on the Caspian Sea, returned by train to Batum, and took steamer along the shores of the Black Sea through the Hellespont to Constantinople, thence *viâ* Varna, Bucharest, Buda-Pesth, to Vienna and home.

On June 11th, 1884, I started for Norway *viâ* Flushing, Hamburg, and Kiel, landed at Copenhagen, thence to Christiania, saw the Midnight Sun at North Cape and Tromsøe, and worked my way back to Stockholm and took steamer to Hull.

On January 12th, 1885, I left England and proceeded to Brindisi, took steamer for Alexandria, ascended the Nile to Cairo, and made an excursion up the Nile to Assouan and Luxor. On my return I struck the Suez Canal and embarked by sea for Jaffa in Palestine, on the 24th reached Jerusalem for my second visit, after an interval of thirty-two years. I was a member of one of Cook's Tourist Parties in Syria, and had very pleasant companions, and we travelled in great comfort. From

Jerusalem we descended to Jericho and the Dead Sea, thence to Nablous, Nazareth, Tiberias, and Damascus : there I left the Cook's party and took the coach across Lebanon to Beyrut, where I embarked for Jaffa in Palestine, and Alexandria, and found my way back to Brindisi by train. This tour lasted three months, from January 12th to April 8th, and was most delightful.

In 1886 I made a comparatively short tour to Germany, Austria, and Paris.

In 1887 my steps were directed through France to Barcelona in Spain, Cordoba, and Granada : thence to Gibraltar, and by steamer to Tangier in North Africa ; thence back to Gibraltar, and by steamer across the Mediterranean Sea to Genoa in Italy ; thence to Pisa, Rome, and Naples, climbed up Mount Vesuvius for the third time in my life (1842, 1879, and 1887) ; returned home by Florence.

In 1888 left England *via* Germany, travelling by train to Moscow, thence to St. Petersburg, Poland, and Hungary, and Belgrade on the Danube, thence to Trieste, calling on a friend at Gratz ; crossed over to Venice, and pushed over the Brenna Pass through the Tyrol to Basle on the Rhine, and to England.

In 1889 I left Hull on a tour to Sweden and beyond, and to attend the International Oriental Congress. I reached Stockholm on September 1st, and at the conclusion proceeded by steamer to St. Petersburg and Germany on the road home. One of my party fell seriously ill at Ratisbon, and this suggested to me, that my time for Tours was over. - we reached England on October 21st after a tour of eight weeks.

In 1890 my last Tour took place. The Geographical Congress was held at Berne on August 9th, and I had to take part in it, and on my road back I visited Treves to see the Holy Coat, which was exhibited to view this Summer after an interval of many years. I was glad to get home safe, and having completed my 70th year thought it well to make Treves

" longæ finis chartæque viæqæ, " :

for I had unmistakable hints, that this kind of thing could not go on with impunity. In 1892 I visited Dublin for a gathering, and never crossed the sea again, fifty years having elapsed

between my first and last voyage. A warning voice to me came :

“ All your other journeys past, .

“ Gird thee, and make ready fast

“ For your longest and your last. ”

ARCHBISHOP TRENCH.

Many thoughts rise in my mind, when I ponder over the experiences of my Wanderings by Sea and Land : how pleasant, how profitable they have been, how much knowledge I acquired from them, and how fortunate I have been. I never once was seriously ill, no accident ever occurred to my conveyance. It is difficult to enumerate the different kinds of conveyances of which I made use. The shoulders of men in my palanquin half a century ago, the howdah of the elephant, the saddle of the camel, the horse and the mule ; the country bullock-waggon, the mailcart, the dawk-carriage, the native river-boat, and sea-steamers, the stage-coach, the railway carriage.

It marks the epoch, that on no one occasion was I driven to make a voyage by sea in a sailing-vessel ; their time was up before mine began, and I left off travelling too soon to make use of a balloon, which I should have greatly liked, if opportunity had offered.

The number of Languages, in which I held exchange of ideas with the people is considerable. In some it was a work of labour, and at best a very indifferent performance ; in others, like some of the Languages of Europe, and my own dear Persian and Urdu in India, it was as complete as could be wished.

I never missed a train, nor a steamship. I never lost any luggage. I never experienced incivility, or rudeness. In Indian Provinces where I was an absolute Authority, I never abused my power, nor gave way to threats, or any acts of offence. I generally got what I wanted by the use of gentle words. Hundreds of times I have spent the night in my solitary tent, or on the roadside, or in a native house alone amidst Natives, and have never experienced rudeness, nor has the idea of danger entered in my mind. In Europe I have

experienced similar courtesy, and nowhere more than in Russia, on the Baltic, or the Caspian, or the Black Sea. Imputed rudeness often arises from the arrogant bearing of the English or American traveller.

Oh, the number of sweet friendships formed from the chance contact of two previously total strangers in the stage-carriage, the boat, the train, or the resting-place at night ! Oh, the amount of information gathered in a *tête à tête* in a crowded vehicle, man with man, forgetting for the time being difference of Religion and Nationality, exchanging views and taking pot luck on the common ground of Humanity !

As regards my tours, I always thought out my route beforehand, studied it geographically, and the country historically, before I started upon it, and thus I was prepared to appreciate what I saw, and inform myself on the points on which I desired information. The tours of some are haphazard flights along a route fixed by somebody else, stopping at great cities with no power of communication with the residents : in fact, a tour is often only a change of scene and air and a variation of the relief supplied to others by shooting on a Scotch moor. My plan was to keep a careful journal day by day, and write an Essay for some Periodical at the close, which was in due course reprinted with the rest of my Writings, which did not rise to the level of an ordinary sized book, in one of the seven series of my Linguistic and Oriental Essays.

Πόλλων ἀνθρώπων ἶδεν ἄστρα καὶ νόον ἔγνω...

There are two kinds of travel : one is typified by the Pilot of a steamer, or the conductor of a train : they beat all in number of mileage, but of the people they know nothing. "The proper study of mankind is Man," and how enlarged an idea of the capacity of the Human Race, Travel, and the study of History of the past years, suggest : List of remarkable spots where I have stood ; list of remarkable men whom I have seen, or with memorials of whom I have come into contact ; immortal panoramas which I have contemplated ; the various stages of Civilization which I have come upon, such as the entirely naked African, and partially naked Indian, male and female ; the variation of Colour, Speech, and Customs.

In the course of my Travels my eyes have rested upon objects, to have seen which is worth any expenditure of money or personal fatigue. I enumerate them : they speak for themselves. I do not envy the intellectual position of the person who would not care to see such objects of interest.

I HAVE STOOD AT DIFFERENT TIMES ON

1. The Capital of Rome.
 2. The Parthenon, and Mount Pantelicus, at Athens.
 3. Mount Zion, and Mount of Olives, at Jerusalem.
 4. Mount Lebanon, Mount Etna, Mount Vesuvius.
 5. The Summit of three Pyramids of Gizeh.
 6. The Himalaya Pass leading into Kashmir.
 7. The Taj Mehal at Agra.
 8. The great Temple at Banaras.
 9. The Kutub Minar at Delhi.
 10. The foot of the Khyber Pass.
 11. The Holy Tank at Amritsar.
 12. The North Cape at Midnight on Midsummer Night.
 13. The Mosque at Sidi Okba in an Oasis in the Great Sahara.
 14. The Island of Phylæ, looking down the Cataract of the Nile.
 15. Lake of Tiberias and Mount Carmel.
 16. Spot on the River Beas, which Alexander the Great reached in India, on his course down the Indus to the Sea.
 17. Statue of Memnon in Upper Egypt.
- And many others.

ROBERT NEEDHAM CUST, LL.D.

Art. VIII.—ACROSS THE PELOPONNESUS.

VI.—TIRYNS.

WE pass the night at Argos after our day at Mycenae, and see no reason to be dissatisfied, though Argos has not Murray's official recommendation as a halting place. Next day we go on to Corinth ; but we must first see Tiryns. Tiryns is only four miles south-west of Argos, and the branch line to Nauplia runs past its walls. So in a few minutes we step out of the early morning train on to a tiny platform in full view of the fortress. There is no station properly speaking at Tiryns, but trains pause to drop and take up visitors, when required. Five minutes takes us to the low shelving rock of "wall-bound Tiryns," and for a moment one is tempted to be disappointed :—this flat rock, undistinguished in height and extent, hardly suggests the site of a formidable stronghold, the acropolis of a powerful capital ! But the first massive remnant of wall we come under, however, dissipates any such doubts. It is stupendous. A walk round the face of the rock brings us fairly under the spell and reduces the mind to an almost bewildered admiration of the resources that could have built a wall like that. As mere masonry this wall produces a much more overpowering impression than the walls of Mycenae. The scale is altogether gigantic—the hugeness of the single stones, the enormous thickness, the formidable height ! The entire circuit stands unbreached. Something is lost indeed of the towering height, believed to have been originally sixty-five feet, but otherwise the walls of Tiryns present as firm and solid a front as when first they were laboriously reared stone upon stone. Genuine Cyclopean work this, mighty blocks, irregular in shape, but cunningly adjusted so as to form a continuous and even surface. Pausanias' remark that "not even the smallest could be as much as moved by a pair of mules," conveys but a feeble impression of the size of the larger blocks ; none are less than three tons in weight, some are as much as thirteen (Diehl, page 51). The wall is nowhere less than twenty-three feet

in thickness and in one part of the highest keep' as much as fifty-seven. How were these mighty walls welded together and who put the great stones in their places? These are questions which inevitably force themselves on the mind, as one completes the circuit of the rock, but questions to which not all the lore of all the archæologist can afford a satisfactory answer. Here is the wall and here is the citadel of Tiryns, its palace, its gates, its galleries and bastions, its elaborate defences, its skilful system of military engineering, but we know not the name of a single prince who reigned there,* nor a single fact of its authentic history, save that it shared in the overthrow which left Mycenæ desolate.

The grandest piece of wall is on the east side to the left of the great gate, where the chariot-road entered the lower fort and swept up by the left round to the courtyard of the palace at the extremity of the rock facing south. The whole of the space enclosed is only a little more than three hundred yards by one hundred and the shape is that of an irregular ellipse pointed at the two extremities. There is a great difference in level from north to south, making a division within the walls into an upper and lower citadel (or even three divisions, if with Diehl we recognize a middle level also between the two). The greatest height is at the southern end, and on this was built the palace and the innermost stronghold of the lords of Tiryns. This upper level occupied by the palace comprises about a third of the whole area.

The ~~palace~~ at Tiryns is larger and much better defined than the palace at Mycenæ, but time and labour are required to work out the details with comprehension. Given time and zeal and an imagination not too sceptical, all the divisions of the Homeric mansion may be worked out fairly satisfactorily. The Aule, or courtyard, it must be noted, faces south towards Nauplia : the road sweeps up from the east and enters from the left, through the Propylæa. This is the basis of reconstruction. The divisions and partitions, however, have eminently the character of a Chinese puzzle to the inexperienced eye. One identification is easy and interesting—the royal bath-room. It

* It is true, of course, that the building of the walls is associated with the name of Proctus and that Hercules was called Tiryntius, but this is scarcely historical.

is a small room on the west side facing the postern, recognisable by the great slab of grey stone (said to weigh 20 tons) which forms the floor. One caution as to all this will not be out of place, considering the scope and range of the superlatives which the enthusiasm of archæologists lavishes on Tiryns and its palace—and very naturally. It must be borne in mind that, after all, the scale of the palace and of the whole fortified area is extremely moderate. The *wall* is immense, one cannot well exaggerate the size of the stones and the massiveness of the structure. But all Tiryns, *i. e.*, the citadel which the walls enclose, would be amply garrisoned by five hundred men, and a complement of a thousand all told would have been a somewhat tight fit. The Tower of London occupies an area at least as great—much more does the Fort of such places as Delhi or Agra. As to the palace its largest apartment would compare but poorly with the hall of a mediæval castle: there is not a room that is forty feet in length and many of the rooms are little more than cupboards. Therefore such phrases as “vast halls,” “splendid palaces,” “vast courtyards and spacious halls,” “princely dwellings,” which even so well balanced a writer as Diehl uses, require to be discounted. So also do unguarded allusions to the splendour and power and riches of the dynasty that reigned at Tiryns. After full allowance is made for the resources required to turn the rock of Tiryns into the formidable fortress we still see to-day, and admitting the probability that a larger fortified city sheltered under the citadel, it must be acknowledged that the kingdom of Tiryns can after all have been but a petty principality. There is not room for more in all Argolis. Interest and significance and historical importance are happily not measured by mere size. Even Agamemnon, granting the historic certainty of the Trojan war, was but the head of a confederacy of chieftains commanding incomparably less fighting power than English Edgar—and the mere wealth and power and luxury of the princes of Mycenæ and Tiryns were comparative and relative only, probably insignificant compared with Athens in her glory; still more so, if measured by the standard of later times, Roman or modern. We are dealing always with a simple and primitive state of society, in many respects rude

and barbaric, though judging by the picture Homer has drawn for us, combining with this simplicity a refinement of manners that has in some respects never been surpassed. We may lawfully doubt, then, whether we should really have been dazzled like Telemachus at Sparta by the mere wealth and luxury of the palace of Mycenae or Tiryns. But this truth detracts not in the least from the overmastering interest of the remains left on the storied rocks at either end of the plain of Argos. Moreover two facts about Tiryns remain perennially wonderful and cannot be too highly conceived of—the astounding solidity of the walls, and the extreme antiquity of the age to which they belong.

One of the most interesting incidents of the visit to Tiryns is the exploration of the famous galleries, built literally in the solid breadth of the wall, with the chambers and bastions connected with them. These galleries are not after all very extensive, but there are several of them, and their structure is in the highest degree remarkable.

Does not the form prove manifestly to our eyes that the Greeks of prehistoric times had discovered the secret of the arch? Freeman remarks with his usual incisiveness “The helpless devisers of theories about the origin of the arch, and especially of the pointed arch, may profitably learn that the arch has been striven after in endless places—that it has been successfully striven after in many places—that the pointed arch simply as a constructive form is as old as the round and most likely older.” (Studies of Travel, page 89).

This is a true saying, yet the latest authorities seem to pronounce against the claim of the galleries at Tiryns to be really early examples of the arch. “The result is that from within, the roofs of these galleries look like real vaults of pointed arches, whereas they are really not vaults at all—but these galleries cannot be regarded as real arches because, generally speaking, there is no lateral thrust.” That is to say, they have the form without involving the *principle*, of the arch. They are formed of slanting surfaces that merely lean towards each other, and are arches only accidentally, as it were. Leake hits very aptly the middle view on this question.

"But in truth" he says (*Peloponnesiaea*, page 119), "it seems impossible for any people, however uninstructed, to make much progress in architecture, employing stone for their materials, without a knowledge of the arch, which originated in the observation that two stones might be made to lean against each other so as to admit a passage between them and to bear a weight above them. The addition of an intermediate or keystone formed the arch." These galleries, then, are not strictly arches, but they represent the architectural structure that led to the arch.

Lastly to complete our pleasures, we may sit on some fragment of stone and enjoy the view—a lovely view on this lovely morning. Looking south the blue waters of the Gulf of Nauplia stretch dreamily away into the distance, a perfect sea-piece set with shapely islands. Nauplia lies close below with its picturesque fortification and shipping. Between us and the town is a very graceful grove of cypresses. Eastward extends the mountain chain of Arachnaeon, its topmost ridges white with snow. The snow gleams on the lofty summits to the north-west, deep in the mainland, back behind the marshalled crests and ridges of Arcadia. Nearer to the left, as one looks north, lies Argos with its castle lifted boldly above the plain; while on the skirts of the bordering hills on the right our more practised eyes can now make out the rocky summit that was Mycenae with Charvati at its base.

Too soon the train for Argos calls us away. Our compartment is full of officers from the garrison at Nauplia, no less courteous than the rest of their countrymen, because they are men of war. Then another railway journey not less alive with interest and memorable for ever than those that have gone before—a shifting scene of absorbing wonder for the delighted eye. Who can adequately describe a day's journey in any part of Greece, when every mile of the way has its insistent appeal to our senses, every mountain and valley and open plain its cluster of associations for the imagination, often closely woven with some historic name and peculiarly its own; but if not that, at least because it is part of Greece and typical of land and people. Surely a wonderful three hours, from half past ten to half past one, and yet the brain has

taken impressions of wonder and beauty that will be a memory and a glory for the rest of our days.

So it was with the journey from Andritsaesa, so it will be with the walk to Phyle, or the march to Marathon and back. Surely the feet of the dreaming scholar ache with eagerness to be up and on the way; surely the spirit strains to draw in through the senses the palpable impressions of that land of a thousand stories supremely significant in the history of mankind, that source of inspiration yet more profoundly significant in the unfolding of the individual soul. We long to be up and away and voyaging to Greece, mind and body must be restless until that pilgrimage is accomplished and the longing appeased. So once we felt; so now we feel in the hour of fulfilment, in the midst of fruition richer than our dreams. If these rhapsodies seem foolish to you, O reader, yet believe they inadequately express the deep satisfaction actually experienced in wandering for a few wonderful days in the superb natural scenery of Hellas and by the sites of her fallen cities, amid the splendid relics of her former greatness.

Moreover, if we do not perversely and ignorantly narrow our sympathies, interwoven with the many-hued threads of classical interest there may be traced others splendid with romantic glamour that belong almost to our own age and time. History has nowhere more heroic pages to show than the story of the struggle by which the Greeks regained their independence and became once more a free nation. Like much else in history that struggle has its darker side; but the foulest stains of its blackest episodes cannot, after all, dim the lustre of the pure heroism that was called forth in many a simple peasant who paid to the utmost the sacrifice of devotion to a righteous cause. Viewed impartially, Missolonghi "*caret nisi vate sacro*"—was not a whit less heroic than Thermopylae—Kanaris a truer patriot and a braver man than Themistocles.

We leave the plains of Argos by the low long winding pass of Dervenaki. Here it was in 1822 that the host of the Seraskier Dramali, who had advanced by the Sultan's

command too rashly to the relief of Nauplia, was in its retreat, on failure of co-operation by the Turkish fleet—miserably cut up and almost annihilated.*

As soon as we are clear of the Pass we sight Acro—Corinth, a magnificent isolated rock nearly 2,000 feet high, the most imposing acropolis that any Greek city ever possessed.

A little further we catch a glimpse of the blue of the Saronic Gulf and at last, close by the town itself, the deeper blue of the Gulf of Corinth.

H. R. JAMES.

* The Pass and destruction of the Turkish Army are vividly described in Mr. A. C. Benson's story "The Capsine."

CRITICAL NOTICES.

LIST OF PICTURES IN GOVERNMENT HOUSE, MADRAS. Printed by the Superintendent, Government Press, Madras. 1903.

THE superlative excellence of its general get-up is the first idea that will occur to whoever takes up this sumptuous volume. For this, Mr. R. Hill, the Superintendent of the Madras Government Press, is to be congratulated. The book which is 8" x 10" in size and 1¼" thick, in crimson and gold morocco cover, is a triumph of binding, paper and typography of which any first-class London publisher might be proud. There is nothing in the book to show whether, either as an *edition de luxe*, or in plainer form, it is available for sale to the public; but presumably it has merely been printed for a limited circulation under the orders of the present Governor of Madras, Lord Amphill, G.C.I.E. The author of the book is Lieutenant-Colonel H. D. Love, R.E., the Principal of the Madras Civil Engineering College, who is to be congratulated on the success which has attended his efforts to get together so much useful and interesting information from the very meagre materials which, according to the author's "Introduction," appeared at first to be available. Colonel Love found himself confronted by a lot of pictures, old and new, *voilà tout*; no records, no traditions, no painters' names, or very few of them; but with a Sherlock Holmes-like ingenuity, he has succeeded, out of these unpromising materials, in producing a readable and interesting volume that will be eagerly sought for by all interested in the early history of British rule in India.

The number of pictures dealt with is 43, of which 24 hang on the walls of the Madras Banqueting Hall, 14 in Government House, and 5 are prints in Government House. The Government House referred to is the one in Madras itself, close to the Banqueting Hall, and not the house at Guindy. Of the 43 pictures, Colonel Love has reproduced 20, in the form

of most excellent photogravures on thick Indian paper; the reproductions are by Walker Cockwell and Co. from local photographs. To the finding of titles, artists, dates, and histories for the 43 practically derelict pictures Colonel Love evidently devoted much industry and research, and in his labour he received assistance from a number of ladies and gentlemen, of whom he gives a list, and whose aid he acknowledges. He also gives a list of some 80 or 90 books consulted in the course of his investigations. Next comes a list containing 87 separate names of the actual and provincial Governors of Fort St. George, from the days of Mr. Francis Day, who founded the Fort in the year 1639, to those of Lord Amphill, the present Governor. Out of the 87 separate names, 63 were those of regular—not provincial—Governors, and the average time during which each of them actually held office was just four years. Most of the interregnums were for quite short periods of from one to six months, but prior to 150 years ago seven or eight of them lasted for more or less a year, the longest being the 35 months in 1746 to 1749 during which the Fort was in the hands of the French—a period in which the British settlement was administered from Fort St. David.

Before passing on to a descriptive list of the pictures, Colonel Love devotes several interesting chapters to the history and description of the buildings of their domicile, to the Nawabs of the Carnatic and the Arcot Princes, to the history of the collection, to the names of the artists, and other kindred matters of artistic and historical interest, covering a period going back to Ptolemy's, of Alexandria, reference to the Arcot palace of his days as ἀρκατοῦ βασιλείων. To the student, and to the dilettante reader of history, and especially of the history dealt with by Orme, Mrs. Penny and the historians of the Wellesley campaigns, these chapters will be of high interest.

Anything like a detailed notice of the part of Colonel Love's book which deals with the pictures themselves would occupy more space than we can devote to such a purpose. It must suffice briefly to refer to such pictures as the following :—No. 1, Stringer Laurence walking with Mahommed Ali Khan, Nawab Walijah of the Carnatic on the island of Srirangam near Trichinopoly, with French soldiers in the distance filing out from the

gate of the Srirangam Temple for surrender to some English horse drawn up outside: No. 26, the installation of Nawab Gulam Mahommed Ghaus Khan in the Durbar Hall of the Nawab's palace at Chepauk by Lord Elphinstone in 1842: and No. 31, the portrait of Major-General the Hon'ble Sir Arthur Wellesley, wearing, *inter alia* a *languti*! and standing alongside of a weird giraffe necked, prize-ox-rumped quadruped, presumed to be his war horse. Amongst the portraits Lord Clive too is to be found, and many others of lesser interest. But to all Colonel Love gives a full measure of careful and artistic description of *technique*, attitude, background, etc., and such historic and other references as are certain to interest the reader.

His Excellency Lord Amphill is to be congratulated on having found so good an editor and compiler, and it may be hoped that similar good work may be done for the pictures in Government House, Calcutta. Doubtless Mr. Havell, in co-operation perhaps with Mr. Forest in London, would be equal to the task.

PROGRESS OF INDIA, JAPAN AND CHINA IN THE CENTURY. *Nineteenth Century Series*, by Sir Richard Temple (pp. 510. W. & R. Chambers, Edinburgh. Price 5s.)

THIS work, as the preface suggests, summarises the progress of half the human race for a century. The contrast between the old-world stagnation depicted in the chapters describing the opening years of the century, and the bustle of to-day is, of course, most marked in the East, though the opening of the twentieth century has naturally produced many essays on similar contrasts in the Western world. Only as late as 1840, for instance, did sailing ships begin to feel the competition of the steamers which have now practically relegated them to history. "The importance of sailing ships was first lessened soon after 1840 by the P. and O. Company, which has played a memorable part in the economic history of India, and which carried by the Overland route, through Egypt and the Red Sea, all the mails and the treasure, most of the passengers, and some among the most portable and valuable articles of trade. Still, however, the mass of the trade, consisting of cheap and bulky articles, continued to

pass by the sailing vessels round the Cape of Good Hope. The produce of India sent to Britain was the main portion of the trade. The return traffic of British manufactures sent to India was not in those days so developed as it has now become. Consequently the sailing vessels generally arrived at Indian ports freighted with rubble, chiefly from Norway, which rubble was used for macadamising Calcutta roads!" Sir Richard Temple rightly points out that the construction of steamers fit to ply to India by the old Cape line is an immense addition to the resources of Britain in view of war closing the Mediterranean route. The writer rightly points out the beneficent influence, politically considered, of medical charities in India. He points out the wonderful faithfulness with which Indian Roman Catholic Christians withstood all the temptations to secession to heathenism which must have followed the fall of the Portuguese power. He recalls the first appointment of an Anglican Bishop in 1813, and the declaration of the Bishop of Calcutta as Metropolitan in 1833. This chapter on religious progress is a fine example of blended enthusiasm and toleration: that on "the sad and sacred subject of Roman Catholic Christianity in Japan" being especially interesting.

"It may be admitted that the Jesuits did unduly endeavour to adapt their teaching of the one true faith to the prejudices of their Japanese hearers, and did but too often assimilate the externals of their services to the insignia of the native religion, thus making in their zeal for conversion some compromise or sacrifice of Christian principle. But here their error ceased. They must have inculcated with undying forcefulness much of what is most striking, touching, elevating and inspiring in Christianity. Otherwise their Japanese martyrs and heroes, of both sexes, of all ages and classes, could never have endured as they did to the hardest of ends. Every worldly motive, love of fatherland and of fellow-countrymen, every political advantage, personal safety for selves and families, impelled them towards a broad and easy road. They chose the short and rugged path leading to physical agony and to execution, with a constancy and fortitude that showed how love of Faith can be as strong as death, and how jealousy

for the truth can be as bitter as the grave. A monument ought to be raised in the memories of European Christendom to their Japanese fellow-Christians who suffered and perished in the early part of the seventeenth century."

LADY ROSE'S DAUGHTER by Mrs. Humphry Ward. (pp. 454. Macmillan's Colonial Library.)

THIS latest of Mrs. Humphry Ward's novels is like most other psychological novels interesting as a psychological study, the author's own mind being the unconscious subject. It is a woman's novel—the impossibly good and wearisome hero Jacob Delafield could only have been imagined by a woman—and it is the novel of that person abhorrent to Ruskin—the theological woman. The theology is different from that in her earlier books: it shows the influence that Catholicism has even on those who do not accept it. The hero in "Helsbeck" was a stern Catholic (repudiated as non-typical by Catholic reviewers) the heroine, Lady Rose's daughter, in spite of her revolt for received opinions in both the religious and the moral spheres cannot escape the bias given by her convent education. Mrs. Humphry Ward's own revolt from the quiet paths of "moderate" Anglicanism began in "Robert Elsmere." It is accentuated in "Lady Rose's Daughter," in the scene where Julie is contemplating the step which leads to moral ruin. Her eye was vaguely caught by the little family pictures and texts which hung by the mirror. a clergyman, with an austere but gentle face, a face nourished on the *Christian Year*.

And above and below them, two or three cardboard texts carefully illuminated by Lady Mary Leicester herself:—"Thou, Lord, knowest my down-sitting and my uprising." "Wash me and I shall be whiter than snow." "Fear not, little flock. It is your Father's good pleasure to give you the Kingdom." Julie observed these fragments absently at first, then with repulsion. This Anglican pietism so well fed, so narrowly sheltered, which measured the universe with its foot-rule seemed to her *quasi*-Catholic eye merely fatuous and hypocritical. It is not by such forces, she thought, that the true world of men and women is governed. As she turned away she noticed two little Catholic pictures such as she had been

accustomed in her convent days to carry in her books of devotion carefully propped up beneath the texts.

The women's characters are sketched with a knowledge and imagination that contrast with the delineation of the men. How Julie could have been prepared to risk all for a Walkworth is as incomprehensible as how she could have married and been satisfied with a Jacob. It is the same with all women's works. Dinah is far more loveable than Adam Bede, although George Eliot's men are more like the men drawn by male writers, but Miss Yonge's, Charlotte Bronte's, and Jane Austen's heroines are natural, their heroes mere automata to utter the sentiments women admire. Only in George Eliot is there a Maggie capable of loving a very imperfect Tom. The world is full of imperfect Toms and it is as well for them that women can be found to love them though they cannot be found to draw them lovingly in fiction. Meredith and Lord Lackington's minor characters show that Mrs. Humphry Ward can draw a natural character in a man where the heroine is not to fall in love with him. Walkworth's repentance shows he had genuine stuff in him, as does his death—and men would say he was always capable of far more than Jacob. In Jacob the average man recognizes with a shudder the "good" boy of nursery primers and school prizes. Incidentally Jacob is interesting, as denoting the stage which Mrs. Humphry Ward's socialism has reached. He is the ideal wealthy landowner who treats his tenants fairly—the ideal, be it said, without offence, of the Middle Ages and of the Church Catechism. Is it that personal success and the pecuniary rewards of a popular author have converted Mrs. Humphry Ward? "Helsbeck" dealt with the country gentleman, "Eleanor" with the English resident on the Continent, "Lady Rose's Daughter" introduces us familiarly to Peers and Duchesses, more natural and refined than Ouida's, but still distinctly "high society, real society." Has her introduction by her literary success to these circles made the author a convert to Things as They Are? Mayfair is a brighter neighbourhood than Gower Street. University settlements and the working classes are absent except as adorning Jacob's character. "It is easy to be contented on £1,000 a year."

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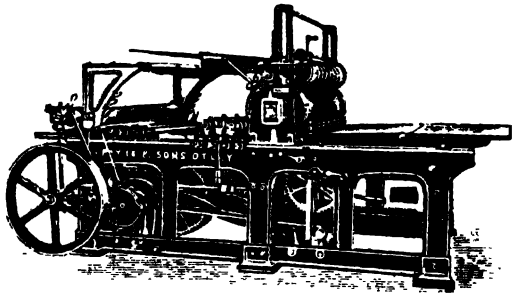
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VOLUME CXVIII,

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THE CALCUTTA REVIEW.

No. 236—APRIL 1904.

Art. I.—THE EMANCIPATION OF WOMAN IN BENGAL.

IT is always an interesting sight to see an ancient society passing through an important evolution, and to forecast its future. For the last forty years or more in this province the improvement of the other sex has been the subject of constant talk and thought and effort. The progress made is considerable. It is just to observe that the progress is largely the effect of Christian Missionary endeavour supplemented by members of the Brahmo Somaj, and some of the young gentlemen who have been to England for education, and returned with new ideas. There are hundreds of Bengali ladies who are emancipated from the traditional ignorance, apathy, and seclusion, there are scores, if not hundreds, who freely move among the public; there are dozens who have won University degrees. There are multitudes who write essays and verses on all manner of subjects and publish them in the vernacular magazines. There are not a few homes both in Calcutta and the mofussil where the style of living is modernised and Europeanised, and there are troops of handsomely dressed children whose parents take pride that they cannot speak their mother tongue, but talk either in broken English, or oftener in broken Hindustani. At every point female improvement shows activity, and the question now is not whether the improvement should or should not continue, but on what lines it is to be carried on. This question can be answered in three ways. The old orthodox Hindu way; the modern English and American way; the combination of these two taking shape in a natural way whereby national instincts and usages are progressively modified in the spirit of Western Civilisation towards a new ideal.

It is singular how within the last ten or twelve years the ancient Hindu standard of female life has reasserted itself again and again, and a silent or semi-public protest has been made against modern forms of girls' education. Within our own knowledge not a few lady Radicals have turned Tories, old customs have been ostentatiously revived, the old law books have been searched for a solution of social problems. A suspicion naturally arises from all this as to whether every thing in old time practices which is disagreeable to our modern social training is necessarily bad, and should be discarded. The ancient model for the woman's life was her absolute domesticity. Wife or widow, girl or grandmother, she practised all her life an utter self-devotion to the household, outside of which she recognised no obligation. On occasions of *pūja*, or important ceremonies, such as marriage and funeral, she attended the houses of neighbours and took part in social festivities, but even these had a distinctly domestic purport, they conserved and strengthened the relations of the caste and clan. This predominant domesticity made the old time Hindu woman a strong housewife, exercising in certain things greater influence than the male members; it made her an expert cook, a clever economist, a good organiser, a formidable controversialist, quite a character whose place in the home and neighbourhood had to be reckoned with. Another characteristic of the old system was the unvarying religiousness of the Hindu lady. Men were not particularly careful of their spiritual or even moral concerns, but it was a most exceptional thing to hear anything said against the religiousness, or regularity, or ethical correctness of the Hindu household. The simple reason of it was that the ladies ruled these. It is indeed long ago I renounced the customs of orthodox Hinduism, but the sense of simplicity, regularity, comfort and kindliness of the Hindu home can never be wiped out of my memory, and whenever I recall those experiences the genial faces of the Hindu ladies present themselves in the mind's eye.

New let us turn to the modern Europeanised model. No one dare breathe a word against European estimates of womanhood. But the question is how far these estimates are applicable to Hindu society, and how far they should be

allowed to push overboard the indigenous preferences and principles of the people of this country. Surely it is self-evident that when you choose to accept European education you cannot logically refuse to accept its main principles on the subject of female education. These principles have undeniably advanced the teaching and improved the manners of our young ladies. Excellent as the old models of Hindu life might be, they could not be fully maintained among the exigencies of the present day. The integrity of the zenana is practically abandoned ; it is no longer thought very creditable for an Indian lady not to know the art of reading and writing. Young men looking out for wives expect them to possess certain social accomplishments which are at bottom European in their origin. The Indian woman is no longer the mere slave of the household, she feels the growing sense of public duty. She attends religious and social meetings. She visits places of public entertainment where there is reserved accommodation for her, nay even where there is none ; she is self-possessed while travelling. There are a hundred things to show that she has, under the pressure of Western ideas, overstepped the limits of the old civilisation. We should suffer this course of natural evolution to quietly continue. But some men would not suffer this ; it is too tame for them. They would introduce and work the whole scheme of Anglicised social radicalism. Even in European countries manners and models of woman's life change, nor are two nations just the same in these matters. There are quieter and less quiet people everywhere in the West. It is difficult to say why we should imitate the latter ; it is difficult to say why the unreasoning imitation of outlandish customs should be the ideal of refinement and reform for the women of Bengal. Take, for instance, the subject of dress. No one can doubt that the costumes of educated Bengali ladies mark the various stages of an evolution at once graceful and proper. But undeniably the metamorphosis shows a rapid sliding down in the direction of the low neck and bare elbow about which there is presumably some difference of opinion even in English society. The old orthodox array of a single piece of *sari* is primitive and scarcely proper. But a long and reckless stride towards the European

evening dress, towards the extravagance and frivolity of it, however dignified among Europeans, will not carry much dignity or propriety in Indian eyes. Abstractly judged clothes are of little moment ; practically one's dress goes a great way towards alienating from or reconciling with the surrounding society. Over-dressing is a passion to which women are naturally subject, and in times of transition, the passion is likely to grow wilder. But the object of woman's improvement in Bengal is not to turn out the fashionable woman, but the refined woman.

Take again the subject of food and drink, the latter specially. The old national diet of Bengal is fertile with so many causes of illhealth, that a change is indispensable, and that change has come. The European style of food is rapidly coming into fashion like the European clothing. The effect is not very wholesome, when judged in respect of drink. At the beginning of the epoch of English education the use of alcoholic liquors suddenly came into vogue, and for succeeding decades many of the most prominent among educated Bengalis died from the effects of intemperance. The progress of the Brahmo Somaj checked this evil. It was never an article of the Brahmo Somaj creed to abstain from drinking wine, but the powerful example of such men as Keshub Chunder Sen laid down an unwritten law against it which few dared to violate. It had all the force of a reaction against the old Hindu College habit formed by its first alumni, and what Temperance reformers could not do the influence of the Brahmo Somaj undoubtedly did. Now the cause of reform is taken in hand by another race of men, I mean some of those who have been to Europe for education, and have returned with European habits. They are free from the old wholesome prejudice against wine-drinking, and many of them have reintroduced it not only amongst their educated fellow-country-men, but unhappily amongst some of their fellow-country-women. The growing prevalence of the habit threatens to have the force of a new reaction against the erstwhile Temperance reaction. What there is in the nervous susceptibilities of the Oriental to aggravate the effects of alcohol it is not easy to say, but it is patent to every observer

that the drink-habit grows fast in the Indian constitution, and is deadly in its consequences. If this be so in the case of the male, how much more deadly is it likely to prove in the case of the other sex? The evil is not quite extensive yet, though it is growing, and public opinion may, if rightly worked, put a stop to it. The whole Brahmo Somaj in every section ought to throw the weight of their influence against this fashionable curse.

Take last of all the subject of public entertainment. The taste for theatricals is no doubt a source of higher education for men as well as women. There can possibly be no objection on principle for a lady to visit a first-class theatre in London. But the theatres of Calcutta are not the same as the theatres of London. Private theatricals are tolerable, but it is doubtful whether one's moral principles, specially a lady's, could justify attendance at all Indian theatricals. We remember an instance in which the late Lieutenant-Governor of Bengal and Lady Woodburn had to cancel an engagement whereby they had promised to be present at a Calcutta theatre. The piece acted was not very objectionable, but the moral consequence of the Lieutenant-Governor's presence and patronage was thought to be undesirable. If this was correct proceeding on the part of an English official and his wife would it be correct for an Indian lady to do otherwise; would it for instance be correct for her not only to be present but to play a part on the public stage? What improvement of manners and morals will it advance? Any professed purpose to promote religious and charitable organisation can be no excuse. If religion or philanthropy had no vitality of its own, but must hold by the apron strings of stage-acting or tableau for money-support, that religion and philanthropy had better pack up their portmanteau and go. The motive for an eccentric self-display of ladies on the public stage might be good, but whether anybody among our people would accept it as anything better than wild Anglicism, unwise, untimely, and repugnant to their sense of order and the right instinct of social life, is open to grave doubt. Any intended reform in the direction of public entertainments wherein the other sex is concerned should be most soberly considered and conducted. In India woman has been so long secluded

that it has affected her whole mental formation, the full glare of public life is actually painful to her. It has also affected the attitude of the other sex to her. The chivalrous respect for woman as woman does not form the mental characteristic of an ordinary Hindu. To undo the effects of this degenerate change must be the work of time, trial and patient effort. Anything like a revolutionary extreme is likely to be worse than the evil it is meant to cure. Repeated social and sectarian revolutions have proved that. Our educated men and women must take care not to contract into a small social sect, but be in full touch with the great Indian society of which they are the pioneers. Warm advocates as we have always been of reform on European lines, it cannot be ignored that in the East woman has certain of woman's peculiarities which must not be levelled down. We do not defend seclusion, but we must maintain the dignity of retirement in feminine manners. The Hindu woman hates to be dragged to the admiring gaze of the proletariat. She loves reserve, silence, self-concealment. She prizes knowledge, refinement, and the privileges of civilised society, but she is temperamentally opposed to violent innovations which do not educate but expose her. Every high class woman is a born conservative, and though she be mistrained and misled by undesirable influences, left to herself, she will naturally choose the right and proper course. The wise thing is therefore to educate her, and let her do what she feels is most natural. In old time society her devotedness to the household, her thrift and self-denial distinguished her; any neglect of household duty, household economy, and self-forgetfulness for others' good, however fashionable, would neither be education nor refinement, but its reverse. In former days intense religiousness and scrupulous purity formed the model woman. Good care must be taken that she retains and cultivates her pious intuitions, and that the prevailing atmosphere of scepticism and irreverence does not infect her. The academic part of woman's education is much less essential than the formation of manners, morals, and spiritual life. It is here that all the wisdom of the Orient must exercise itself. The progress will be slow if it is to be ordered progress and not mere innovation, under

the general care of Christian philanthropists and Brahmo Somaj leaders. The evolution of woman's reform in India is quietly moving forward. And all true friends of the country and people watch the progress with interest not unmixed with anxiety.

PROTAP CHUNDER MOZOOMDAR.

Art. II.—FROM CAIRO TO KHARTOUM.

NEARLY everyone returning from India spends a week or two in Egypt. It breaks the journey in a very agreeable manner, and much may be seen in a short time in and near Cairo, its fascinating street-life, and the Bazaars, where many nationalities congregate, Egyptians, Europeans, Arabs Bedouins, Nubians and hosts of others. Then there are charming drives to the various places around, above all to the great Pyramids of Gizeh and the ever mysterious Sphinx, which are only eight miles distant, Sakkara and Memphis being a little further away.

But to take a trip up the glorious Nile, visiting all the important temples and monuments, Abydos, Kanak, Abu Simbel and the tombs of the Kings, and numbers of others, arriving eventually at Khartoum, it will be necessary to spend three or four months in Egypt. And the time will be well spent for of all the countries in the world Egypt is the most interesting. Every year it attracts more visitors, but there is always something new to see. Excavations are being constantly carried on, and every season brings fresh discoveries to light. We saw last year a chariot which belonged to one of the old Pharaohs found in one of the tombs of the Kings. It is of particular interest, nothing of the kind, I believe, having been discovered before. It was shewn to us by special permission and is now at the Museum at Cairo. Originally it was overlaid with a covering of gold, but this has long since been stripped off and carried away by grave robbers, perhaps thousands of years ago. Everyone ought to visit the Museum before going up the Nile and again on the return to Cairo. It gives additional interest to what one hears about Seti I., Raméses the Great and many other Pharaohs, to have actually seen their mummified remains, and on the return, objects perhaps that have passed unnoticed before, assume a very different aspect after one has heard and learnt so much about them during the journey.

My father and I went out to Egypt last year, and on arrival stayed for a few days in Cairo and, of course, did not

let many days pass before visiting the Pyramids. They are simply stupendous. It is necessary to stand some considerable time before the Great Pyramid ere one can take in its hugeness in any degree whatever, but the best way to get an idea of its height is to mount to the top, a somewhat fatiguing undertaking. The drive from Cairo is a charming one along a well kept road under an avenue of shady trees ; or if one is pressed for time there is the tramway, fancy going in such a modern conveyance to the Pyramids ! How astonished King Cheops would be if he could take a look round there now. Arriving at Mena House Hotel (which was built as near as possible to the Pyramids on account of the pure and exhilarating desert air) we had tea on the verandah, and then mounted the camels that were waiting outside, for it was still some little distance across the sand to our destination. First we visited the Sphinx, thought by many to be the oldest of all Egyptian monuments, older than the Great Pyramid and that it dated back before the time of Mena even to pre-historic times. The Sphinx has many times been cleared from the drifting sand of the desert. Egypt was often ruled by princes of alien blood and the Sphinx always seems to have been taken care of and respected until its Mahommedan conquerors during the last century actually used it as a target for shooting at, and being now noseless it has acquired an ugly negro aspect. When it was carved out of the solid rock and came into being it was no doubt beautiful, I have even heard enthusiasts say it retains traces of beauty still, but I could not myself see any loveliness whatever in its poor scarred, battered face. How many thousand years the Sphinx has gazed across the desert no one can say with certainty, but it seems hardly probable that it can stay for very many more centuries, for it is certainly gradually crumbling away.

The Great Pyramid was built by King Cheops of the Fourth Dynasty, as a last resting place for his body, and although it was, I suppose, the strongest building ever erected his corpse was nevertheless stolen. It originally covered thirteen acres before its outer covering of polished granite was taken away, and was a hundred and twenty feet higher than St. Paul's, London, exceeding St. Peter's at Rome by thirty feet, and were

it hollow there would be plenty of room for the latter to stand inside it. This Pyramid took between twenty and thirty years to build, requiring the continuous labour of one hundred thousand men. I was determined to make the ascent and was accordingly dragged up in the orthodox manner, an Arab pulling me by each hand, and another helping to push. Some of the stones are four or five feet high. It was harder than I expected and when half way up almost regretted having started. Upon reaching the top I duly inscribed my name. It was somewhat difficult to find a place that had not already been written upon, but at last I found a little space and I remember it was not far from a large A. E. which the Arabs said King Edward had cut in the stone some time ago when he ascended the Pyramid. The view from the top is wonderful, on one hand can be seen miles and miles of sand and numerous Pyramids, on the other hand Cairo in the distance. The Arabs, camels and donkeys standing at the foot, appearing not larger than insects. I waited until the sun set; the great ball of fire illuminated the sand and distant objects with a glorious and weird light. Descending is almost as difficult as going up, and very tiring, jumping from one huge stone to another, a false step would mean being dashed to pieces below. It seems strange there is no mention of the Pyramids in the Bible, for they were already old when Abraham journeyed into the land of Egypt.

On a lovely morning we left the landing stage above the Kasr-el-Nil Bridge on board the *Rameses* for the journey up the great river, soon passing old Cairo and the traditional site where Moses was found in his ark among the bulrushes. In the distance we could see the great Pyramids of Ghizeh, and further on the Pyramids of Sakkarah. Sometimes we passed a stately dahabeyeh with its picturesque lofty sails, and the scene on the banks was an ever changing and animated one. Groups of natives, women filling their stone water bottles, and animals being driven to the river to drink. Just as luncheon was finished we arrived at Bedrachin and suitable men were found for our carrying chairs, which we intended to take with us as far as Assouan. These were not unlike the mountain chairs used in Japan, and are rather like wicker arm chairs

supported by two strong poles, and carried on the shoulders of four men. This is a much easier way of travelling than by donkey back, which is exceedingly fatiguing on long journeys.

Starting we travelled at a fair pace along the rough road, and before long reached the site of Ancient Memphis, considered to have been built by Menes, the first known king of Egypt, who lived about 5,000 years ago. It was a grand old city then and for centuries afterwards, but has long ago been trodden underfoot. The Egyptians from the earliest period built their houses, as they still do, of sundried bricks of Nile mud mixed with a little chopped straw ; these falling into decay were after a time reduced again to mud and others built on the top of them, making huge mounds ; these mounds are to be seen in great numbers in Egypt, and everywhere you see one you know that once upon a time a city or village must have been there, many have been excavated but there are still plenty left for the explorer. The temples and palaces were built of more substantial material, but even these have entirely disappeared from Memphis as the stones were carried off centuries ago to build other edifices on the right bank of the Nile, and later the Mahommedans took what was left to build themselves houses and mosques in Cairo. Groves of picturesque palms now cover the site of the city which extended for many miles. Pharaoh after Pharaoh succeeding King Mena embellished and enriched the sanctuary and the whole city.

Two gigantic statues of Rameses the Great, now lying on their backs, were unearthed here a few years ago, the larger one of fine grained limestone is one of the most pleasing of his images. On his breast is a shield upon which is inscribed his name "God of the sun, mighty in truth, approved by the sun." This Colossus when whole must have measured forty-two feet in height. We were, however, to see much larger statues even of this wonderful monarch during the journey up the Nile.

Getting into our chairs again our Arabs carried us through richly cultivated fields, where peasants were ploughing with oxen, and little wooden ploughs in exactly the same manner as in the times of the Bible. About an hour brought us to the

Necropolis of Sakkarah where is situated the step Pyramid, also the tomb of Pepi I. and the Pyramid of Unas of the Sixth Dynasty. First, I think, we visited the Serapeum or Apis Mausoleum. Descending a steep and rocky path we entered with lighted candles in our hands. This vast subterranean hall is 1,200 feet long, and the sacred bulls were buried in vaults on each side enclosed in granite coffins of immense size. Twenty-four sarcophagi are now to be seen ; they have most of them been rifled at different times and their contents taken away. One chamber alone remained unnoticed, and when the vaults were discovered a few years ago everything was precisely in its original condition although 3,700 years had elapsed since it was closed, even the footprints of the slaves who carried in the great corpse were to be seen in the sand. An avenue of many hundreds of sphinxes led up to the entrance, but these have all disappeared under the sand. The sacred bull was worshipped from early times in a special temple at Memphis. These bulls were quite black with a square spot of white on the forehead and had special priests to look after them. After death they were embalmed and interred with as much ceremony as if they had been kings. The heat in the vaults was so great we were glad to get out into the fresh air again. Many of the children of Israel had learnt the worship of the bull from the Egyptians, and after the exodus, in their discontent, they begged Aaron to make a golden calf to go before them.

Not far from the Apis Mausoleum are some very ancient tombs full of interest, as the paintings on the walls depict the daily life of people of the period. One in particular of a man called Tih who lived about 5,000 years ago. He was a confidant of the King, and married a Princess. The bas-reliefs on the wall portray the life of the founder, how he managed his estates, etc. Being also a keen sportsman, shooting, fishing and hunting scenes are vigorously represented ; also pictures show how his food was cooked and his fields ploughed and animals brought up for sacrifice. Here and there is a portrait of himself and his wife, the latter drawn on a much smaller scale ; this one sees in all ancient Egyptian representations, the men appearing as huge monsters compared

with their wives and families, which strikes us as being exceedingly comical. In the tomb of Meri, we saw his statue crudely painted still in its place. The statues of the deceased were placed in nearly all the ancient tombs, but many have been taken away and adorn various museums. The paintings here show principally the ancient industries of Egypt, mercantile transactions, building of ships, etc. The poor people were usually mummified and buried in rows in great holes dug in the sand. On the way back we skirted the ruins of ancient Memphis through more groves of palm trees, watching with interest the peasants at their daily tasks at the doors of their huts, and much enjoyed our afternoon tea on our return to the steamer.

The second day we steamed quietly onward seeing a new panorama every minute, the exquisite sunlight on the water, and the soft and warm air made it difficult to imagine that our friends in England, perhaps, were experiencing snow storms and bitterly cold weather. Now and again we passed little villages nestling among palm trees, strings of laden camels and women in long blue robes came down to the river for water, their water pots poised gracefully on their heads. At intervals along the banks we noticed men engaged in raising water from the Nile with the help of curious looking appliances called shadufs. They pulled up the water in buckets by means of a weighted pole resting on a wooden cross bar, sometimes two or three of these were placed one above the other. This is one of the simplest methods the natives have for irrigating the land.

Next morning early we were out on deck again watching the ever-changing scene. Here beautiful green palms, then again sandy waste with great masses of rock in the distance. We reached the village of Beni-Hasan about 1 o'clock, and scrambling through a crowd of noisy shouting donkey boys surrounded by clouds of dust, were hurried away in our chairs to the tombs of Beni-Hasan hewn out of the rock. These famous tombs are situated high up in the mountains. We alighted at the foot and climbed up the steep sandy rocky path, past scores of common mummy pits to the top. The entrances were entirely hidden in the sand until lately excavated. Excavations were still going on and heaps of pottery and

broken vases were lying about. The tombs belonged to grandees, lords, princes and governors, there are about 39 of them, the larger ones consist of a hall for offering and a shaft leading down to a corridor ending in a chamber which contained the sarcophagus and mummy, but the mummies have nearly all been removed. The walls are plastered and scenes in the lives of the deceased painted upon them. One of the finest is that of a governor who ruled a "Nome" in Upper Egypt, his name was Ameni; he seems to have been a good, clever and wise man, but not particularly modest as regarded his own achievements or in setting them forth, for he caused to have written a long inscription in praise of his own virtues, beginning with "I was a gracious and compassionate man and a ruler who loved his city," he describes certain successful military campaigns and expeditions undertaken for his lord; and continues "I never made the daughter of a poor man to grieve, or defrauded the widow or oppressed the labourer." He makes an appeal to all who visit his tomb for funeral offerings to be made to his "Ka"—"O, ye who love life, and who hate death say ye. Thousands of cakes of bread and vessels of beer and thousands of oxen and feathered fowl be to the Ka of the prince Ameni."

It is all very well to make excavations in order to study the art of remote ages, but it hardly seems right to take up these corpses from their resting-places to be exhibited in museums, when their relatives had taken such pains to hide them, carefully selecting some out-of-the-way place in which to bury their dead, and covering the entrance with sand so that many have only been discovered by a mere chance. It was believed by the Ancient Egyptians that as long as the body remained intact the soul would again visit it and be re-united to it, hence their care in preserving their bodies, and thanks to the dry climate many are in perfect preservation to this day. Slaves and peasants were buried in common graves, but kings and noblemen in magnificent tombs according to their ranks and riches. It is supposed that between 4,000 and 5,000 years, 731,000,000 bodies were embalmed around the Nile valley, and although thousands have been dug up, millions yet remain. The bodies were buried in the desert in order to keep them from the Nile floods. At the same time no portion of the

fertile land was taken from the requirements of the living. It has been said that in the whole of the Nile valley not one ancient grave has been found which could be reached by the inundation of the river.

Bodies were mummified in three different ways. By the most expensive method the brain was extracted through the nose by means of an iron probe, and after making an incision in the side of the corpse the heart, liver and intestines were removed, steeped in wine and aromatic gums and placed in jars sacred to the gods. The cavity in the body was filled with fragrant substances such as myrrh and cassia, and sewn up again, next it was laid in natron for sixty or seventy days, and finally wrapped in soft bandages of linen, and laid in the mummy case. Only the very poor used the cheapest method of embalming; the body was merely cleaned with strong astringents and laid in salt, or in salt and hot bitumen for seventy days and a set of wax figures made in the shape of the four gods of the dead were sometimes buried with them in lieu of the expensive funeral jars.*

As we descended the hill, scores of children flocked round us crying "backsheesh," "backsheesh." Dozens ran in front and behind, clamouring and holding out their hands, tumbling over one another in their eagerness to get closer. It is incessant this cry of "backsheesh" which literally means "a present"; one hears it on all sides from men, women and children till it becomes exceedingly tiresome. To give them anything, only makes them the more ravenous, but we could not resist throwing some small coins to the little ones and at last left them behind.

The fourth day we were delayed a considerable time owing to a dense fog which obscured everything; the morning was very raw and cold until the sun forced its way through the mist. Proceeding we passed huge rocks rising straight from the banks of the river, there are hundreds of miles of cliffs near the banks of the Nile, Egypt being very rich in building

* The British Museum contains the mummy of a prehistoric man, who lived any time between six thousand and thirty thousand years ago. The position is a curious one, he lies on his side, his hands before his face and his knees drawn up to his chin. He must have been a light coloured man, for a tuft of red hair still remains upon the skull.

material. As one travels up the river, first one sees fine white limestone, then sandstone, and afterwards the red granite of Assouan. All this was floated down in great slabs for the temples. The colossal figures were usually completed in the quarries before removal. Passing through the Barrage we reached Assiout in the afternoon and anchored there for the night. Crowds of natives were waiting on the banks, with their goods to sell spread out before them, here the famous red pottery of the town, there sham jewellery, imitation scarabs, beautiful shawls and bead necklaces. We drove through the bazaars, they are fairly good and some of the European houses outside the town are very pretty. Assiout has always been a town of importance owing to its situation in the midst of a fertile plain and at the beginning of a great caravan route through the Libyan Desert to the Soudan.

Assiout was called the Wolf City from the worship of the god Wep-wat, who was represented with a wolf's head ; some say it was sacred to Anubis, the jackal-headed god of the dead, probably it was the same deity under different names. Next morning we drove to the sacred tomb or temple. In one of the chambers was a deep hole from which a number of mummies of wolves had just been dug out ; they were lying in heaps on the ground, together with remains of human mummies, probably priests of the sacred wolves. It was a very steep climb to the tomb, which is situated in the mountain side ; from there we had a good view of the town with its graceful minarets. Descending we passed a large Arab cemetery. Driving in the usual reckless manner back through the town our Arab driver nearly succeeded in knocking over some of the heavily laden donkeys and camels which blocked the way in the narrow streets.

Resuming our river journey we saw in the distance Kaul-el-Kebir. The temple which formerly existed there was dedicated to Antaeus, the Libyan wrestler, who fought with Hercules ; it is said that as long as he remained in contact with his mother earth he was invincible, and in fact the more often he fell the stronger he became. Hercules, therefore, in order to overcome him had to hold him in the air. There is a large hole in the side of the mlls where a number of mummies were

found a year or two ago, but being of no particular interest were put back again.

The next day being Sunday we remained on board, having the church service in the saloon in the morning. During the afternoon we passed the tomb of Sheik Saleem, a Mahommedan saint held in much reverence by the Arabs; during his life he sat on the same spot where he is now buried, some say for over fifty years during the heat of summer and cold of winter, without clothes and unwashed, depending entirely upon the villagers near for food. They in return entreated his blessing and would have parted with their last penny rather than he should starve.

Abydos is not far from here, but as we intended leaving these ruins until the return journey we went straight on to Dendera, a large and magnificent temple dedicated to the Egyptian Venus, Hathor, the goddess of love and joy. It was built in the first century B.C. during the reigns of the later Ptolemies on the site of an older edifice founded in very ancient times. It is in splendid preservation except that nearly all the faces of the gods and goddesses within reach have been shamefully mutilated, presumably by the Copts, early Christians, in excessive religious zeal. It is unfortunate so many of the Egyptian temples have been knocked about in this manner. In some bas-reliefs whole figures have been chipped away, the outline alone remaining. The walls higher up towards the ceilings remained unmolested.

We passed through one dark chamber after another with lamps and candles, the walls and pillars of which are principally covered with fantastic forms of Hathor in various attitudes. Horus, the hawk-headed god, and Troth, the ibis-headed are represented sprinkling the king with the symbols of life. The monarch offers incense and flowers to them, while they in return promise him long life and prosperity. On the ceiling of the Great Hall, supported by great Hathor-headed columns, paintings of scarabaei and zodiacal emblems appear, the colours being still quite distinct. We descended some steps and crawled through a small hole with great difficulty to get into the crypt. It was pitch dark, but by burning magnesium wire, which gives a brilliant light for a few moments,

we were able to see. Some of the finest carvings are here, and as they were doubtless overlooked by those exceedingly zealous persons are as perfect as on the day they were executed. Hundreds of bats hanging from the ceiling were disturbed at our approach, and not liking the light flew about in all directions making us hurry to get into the light again. Much of the fine sculpture is due to the beautiful Queen Cleopatra. On the outer wall of the temple appear the famous portraits of herself and her son Cæsarion, whom she was so anxious should succeed her on the throne of Egypt, but after her death the poor youth was murdered. Egypt as a nation, which began with Mena, ended with Cleopatra, when it merely became a Roman province. Quantities of rubbish still lie close up to the temple. Before it was excavated some years ago, it was nearly buried under the accumulation of centuries, and a village of mud huts had even been built upon the roof.

The following day we arrived at Luxor, an Arab village built on the site of ancient Thebes, remaining there some days. Thebes is said to have been one of the most magnificent cities in the world. It dates from the early kings, but during the reign of Amenophis IV. (the king who replaced the old religion of worshipping so many deities for one god, the Sun) the kingdom was transferred to Tel-el-Amarna. After his death it was again removed to Thebes, which extended for many miles on both sides of the river, and grew in importance as time went on, and the finest temples were built by Seti I. and Rameses II. The great temples of Luxor and Kanak lie on the eastern bank of the river, and were connected by an immense avenue of ram-headed sphinxes two miles long; probably there were more than five hundred. Many still remain but nearly all of them have been very much knocked about, some lying on their sides broken in pieces and others headless. As the sun rises in the east and sets in the west the eastern bank was called "the city of the living" and the western bank contained the Necropolis or "city of the dead" which included many temples, and far away in the distance the tombs of the kings; persons principally connected with the rites of the dead such as embalmers and certain priests lived here. The populace on each side of the river could see those on the

opposite bank ; a grand religious procession must have been a fine and imposing spectacle, hundreds of priests richly dressed passing along those beautiful avenues, including, perhaps, the king and his numerous retinue. No wonder the people looked on with awe and veneration.

We started quite early in the morning to visit the great ruins of Kanak, the most wonderful and interesting in Egypt. Riding through the village of Luxor for some distance and on through the Avenue of Sphinxes we at last reached the ruins of the great Temple of Ammon, the "Throne of the World" ; huge pillars, blocks of stone, colossal figures and broken obelisks were piled up or lying about in grand confusion. The Temple was added to by many successive Pharaohs. Entering the Hypostyle Hall of Seti I. the most splendid single chamber that has ever been built, we gazed on its famous columns. Seti set up seventy-nine and Rameses II. fifty-four. Six men with arms extended could hardly span one of them. They are completely covered with hieroglyphics and figures of the gods in beautiful bas-reliefs. Some of the lovely colouring still remains. It must have been the richest and most magnificent building ever seen. Several of the columns were prostrate, others appeared to be on the verge of falling, gangs of workmen being employed in raising them to their original position ; a gigantic task.

In other parts of the Temple are one or two fine obelisks, one, particularly beautiful, hewn out of the pink granite quarry at Assuan, was placed there by the proud Queen Hatasu ; its apex was originally covered with gold to be better seen from a distance, the fellow to it has been overthrown and lies close by. Then there is the Triumphal Monument of Sheshonk I. (the Shishak mentioned in the Bible). It commemorates the victory won by Shishak over Rehoboam, son of Solomon, and confirms the account given in 1 Kings c. XIV v. 25, 26, "And it came to pass in the fifth year of King Rehoboam, that Shishak, King of Egypt, came up against Jerusalem. And he took away the treasures of the house of the Lord, and the treasures of the king's house, he even took away all the shields of gold which Solomon had made." Mention is also made of the event in 2 Chronicles XII.

During the afternoon we visited the Temple of Luxor close by the river bank, and saw what there was to be seen of it, for a great part lies buried ; many recent buildings and huts have been cleared away, but a little mosque, which its Mahommedan owners will not sell to the Government under a very high price, quite spoils the appearance of the Temple courts. The edifice was built by Amenophis III. and was much added to by Rameses II., who, as usual, could not refrain from erecting several colossal figures of himself. One of two pink obelisks remains, the other is in Paris and adorns the Place de la Concorde.

Luxor is a pretty village ; the hotels have charming gardens. It is quite a winter resort for invalids and boasts a few shops, but nearly all the antiquities sold are counterfeits, being turned out by the gross every season to be sold to tourists. Scarabs, votive statuettes, imitations of old beads and bits of mummy cases, you cannot walk for many yards without being surrounded by numbers of men and children worrying you to buy their forged articles and assuring you that they are really antique.

Up betimes the next morning (for it is a long journey to the tombs of the kings) we were rowed across in a small boat to the western bank of the Nile. Borne shoulder high by four men, a "relay" running behind our chairs to take the place of those when tired, we were carried over a sandy waste, a cutting wind blowing clouds of dust upon us (it had turned suddenly cold the previous day), then along narrow paths through flourishing corn lands, where, fellaheen were busy at work, a little distance brought us to the Temple of Koonah founded by Seti I. in honour of the god Ammon, and for the worship of the king's father Rameses I.

Emerging we proceeded along a stony valley for a considerable distance. High limestone cliffs in all kinds of curious shapes rose on either side. Once it was a rushing torrent bed and the ground is strewn with huge boulders. This is the Valley of the Tombs of the Kings. The glare was very great, it was necessary to protect the eyes as much as possible. At last we arrived at some unpretentious looking square openings in the rocks, guarded by custodians, and were told that these

were the entrances to the Tombs of the Kings. Here in chambers cut out of the living rock the Pharaohs of the 18th to the 20th Dynasties were buried ; these rock tombs succeeded the Pyramids and consist of passages, chambers, corridors, staircases and pillared halls each farther removed from the entrance than the last, usually slanting downwards. The walls and pillars are covered with beautiful paintings in infinite variety. These sepulchres are gorgeous palaces and decorated as magnificently. We visited several of the tombs, that of Seti I. whose mummy is in the Museum at Cairo being one of the largest and best known. It contains three pillared halls, a large room thirty feet long, six small chambers, three staircases and two long corridors. Every part is ornamented, as are all the tombs with descriptive pictures showing the king being conducted into the world of death, attended by Anubis, the jackal-headed god. There are various other deities, serpents, demons, crocodiles, and bats. And the mummy is borne in a boat over the sacred lake. Finally the king after being purified and judged by Osiris, the god of the underworld, is received into the abode of the blest.

And here I may mention that all these gorgeous tombs are now lighted by electricity. Incongruous it may be ! but what a splendid idea ! instead of being obliged to grope along through the pitchy darkness with candles or torches, the smoke of which considerably damages the ornamentation, as one enters a brilliant light is switched on enabling one to see clearly the minutest detail. I am glad I did not visit the Tombs of the Kings two or three years earlier. Moreover wooden staircases have been erected along the slanting passages, and bridges over some of the deepest of the pits.

As the Ancient Egyptians believed in the revivification of the body so were they anxious to have their tombs as magnificent as possible, in order that the soul, when it revisited the body might have a fitting place to dwell in ; for this reason many of their possessions were buried with them, articles of adornment, vases of gold and silver, jewellery, bows and arrows, and often the Book of the Dead to instruct them the way to the abode of the blest. Also meats to refresh the body, and above all numerous scarabs or emblems of the sacred beetle. These

were made in amethyst, jasper, balast, cornelian, and glass. Generally one was placed in the mummy in place of the heart. Scarabs were also used for commemorating historical events and for ornaments, men and women wore them in rings. They were made into bracelets and necklaces, these were often buried with them. Myriads have been discovered, some of great value according to the inscription or name of kings or nobles written on the flat base of the scarab.

But the most beautiful tomb of all is the last resting-place of Amenophis II., a king who lived some years before Seti I. and Rameses II. For some reason it had remained unnoticed by early grave robbers, and had not been plundered as nearly all the other graves have been, consequently when it was discovered two or three years ago everything was in its place just as the relatives had left it thousands of years before. We descended a passage of considerable length by the aid of the temporary wooden staircase, and passing through several rooms at last reached the chamber of the dead. There rested the king in his sarcophagus; the lid having been removed and glass put in its place, we were able to see the monarch lying in sublime repose exactly as he had lain through thousands of years. A strong electric light was placed at the head of the coffin. As we gazed down at the tranquil face and around the magnificent abode of the dead it was impossible to remain unmoved. It had an indescribable effect upon us. The exquisite pictures of the gods and goddesses in such gorgeous colouring on pillars and walls were as fresh as on the day they were painted, no smoke of candles or torches having defiled them, nor hand of man defaced them.

The heat in the tombs was very exhausting, but it is always so in the underground passages in Egypt. Emerging into the open air again, which had considerably altered since morning, the sun being now quite hot, we climbed or were rather dragged by an Arab on either side, up a steep and stony path, our chairs following behind, and again seating ourselves were carried over the Libyan chain of mountains. The Nile Valley looked beautiful in the sunlight as it lay below us. After travelling some distance we again dismounted and almost slid down the other side, ankle deep in

sand and stones, close behind the Temple of Queen Hatasu. She caused it to be built to commemorate the wonderful expedition to Punt, or as we know it Somaliland, which took place during her reign, about 1515 B. C. On the inner walls of the Temple are descriptive paintings of the whole journey ; the sailing of the ships ; the happy reception of the Ambassador among the savage tribes, and the return, when the whole city went out to meet the travellers who had brought with them gold, silver, leopard skins, dogs, apes, ebony, and incense trees to be planted in Egypt. The chief of the country and his wife, a curious looking dwarf, returned with the expedition to do honour to Queen Hatasu. Very little of the outer part of the ancient Temple is left, it has been greatly restored. Hatasu was an extraordinary woman and assumed a position hardly held previously by any female in Egypt ; she reigned for some years alone, then conjointly with her young brother Thumosis III. She was often represented in male attire and with an artificial beard, and preferred being called "The King" rather than "The Queen." She handed down many monuments to posterity.

Being by this time exceedingly hungry and thirsty, the sight of luncheon laid out in the little rest house "Chalet Hatasu," near to the Temple, was an exceedingly agreeable one, the table was loaded with innumerable good things brought from the steamer. We certainly did justice to the meal, and mightily enjoyed an hour's rest afterwards, although enlivened by the presence of several pedlars of antiquities, who had actually followed us there, and had placed their wares on heaps of stones just outside the verandah where we were sitting.

Another day we crossed to the western bank again, being borne over the same sandy plain to the fields beyond. Here the peasants or fellaheen were busy at work making bricks for their houses, of Nile mud ; rows and rows were lying in the sun to dry ; or irrigating their land by means of sakkiyehs, large wheels to which a chain of waterbottles had been attached, and drawn by blindfolded oxen, a little boy sitting on the pole to drive them round and round, small canals supplying water from the river. Many donkeys passed by, so laden one could hardly

see anything but a moving mass on the top of four thin legs, or we met a scornful looking camel its nose high in air heavily laden with sugarcane, and women who drew their shawls across their faces if we glanced at them, carrying their babies astride one shoulder, one little foot dangling in front, the other behind, their tiny hands clasping their mothers' heads.

We soon arrived at the Rameseum, an enormous building erected by Rameses II., but at the present time almost a heap of ruins. Here lie the remains of the Colossus of Rameses II., the hugest statue in Egypt. It is supposed that it was knocked to pieces by Cambyses the Persian. With difficulty, as it is so finely polished, we climbed upon the face of the statue, which measures from ear to ear $6\frac{3}{4}$ feet. How this huge mass of granite, sculptured 3,200 years ago, was floated down the river from Assouan, dragged across the wide sandy plain and set up in its place, will ever remain a mystery, as its total weight is considered to be over two million pounds. It is supposed that Rameses II. was the Pharaoh who oppressed the Israelites so grievously. He was certainly the greatest builder in Egypt, adorning it from one end to the other with monuments, generally in the form of colossal statues of himself, for he was inordinately vain, and without multitudes of slaves at command could not possibly have accomplished what he did. Cities grew apace. In the Bible we read, "They built for Pharaoh treasure cities, Pithom and Rameses," treasure cities were built for the purpose of taking care of military stores and grain. When these cities were excavated a few years ago the bricks were found to be of three qualities in the store cellars, the lower bricks were mixed with chopped straw, higher up with reed and stubble, and at the top when the poor oppressed Israelites could get no more, with Nile mud alone, having nothing to bind them together they were not so strong. Rameses reigned sixty-seven years, was exceedingly handsome, brave and warlike in his youth taking part in many great battles, but in his latter years the country was given over to peace, enabling him to bestow more time on his favourite building operations. Of his 170 children 111 were princesses. And it is supposed his eldest daughter was the princess who found Moses in the ark of bulrushes and brought

him up in her house as her own son. Rameses the Great was buried in the valley of the Tomb of the Kings, and his mummy is now in the new Museum at Cairo close to his father Seti I. * His son Menephthah I. succeeded him, and was the Pharaoh who lost his chariots and hosts in the Red Sea when pursuing the Israelites.

There are some tombs of private individuals in the hill behind the Ramaseum. One, the tomb of Nekht, is beautifully painted, and is a fine example of the grave of a Theban gentleman of the Middle Empire. The representations shew various scenes in his daily life, himself and his wife seated at table, or in an arbour while attendants bring them poultry, fruit, fish, etc. Others show birds being caught in nets and plucked, and various other domestic scenes.

Returning we stopped to view the famous Colossi of Thebes. These sitting figures are two portrait statues of Amenophis III. ; each was formed of a single block of sandstone, and are more than sixty feet high, they were originally placed in front of a temple, but all trace of it has now disappeared. They are surrounded by cornfields and, during the inundations, by the waters of the Nile. * For more than three thousand years they have sat there keeping their watch over the lapse of ages. The more eastern of the two statues was known to the Romans as the "Vocal Memnon," as it sometimes emitted in the early mornings a musical sound. This continued for about two hundred years, when the figure which had been seriously damaged by an earthquake was restored, and from that time the sound entirely ceased.

The next morning we proceeded on our journey up the Nile, arriving in an hour or two's time at the village of Esneh. We walked through the Bazaars to the Temple of Khnum, the ram-headed local deity. Until you get close to it you can hardly see it, as the Great Hall lies so far below the surface, it was in fact choked to the chin with rubbish until excavated by order of Mohammed Ali. But thanks to this rubbish it has been preserved from mutilation by the natives.

* The mummies of Rameses II., Seti I., and one or two other Pharaohs are in perfect preservation. The features are refined, the hands long and slender, and the nails beautifully shaped, manicured and stained with henna.

The mound has been cut away from the building, which stands on the level of the ancient city, forty feet below. Standing level with the capitals of the pillars we looked down, then descended a wooden staircase into the Great Hall. It reminded us very much of Dendera, and is in beautiful preservation, but then it is comparatively modern, that is to say it was built about the time when our Christian era began. The names of Claudius and Vespasian occur among the Egyptian gods.

Walking back to the steamer we were followed by the usual crowd of children demanding *backsheesh*. The market place swarmed with people sitting about displaying their wares, and we nearly fell over some of the camels and donkeys lying about. I think in this village we saw more pigeon houses than in any other. The Arabs keep flocks of pigeons and build houses for them on the roofs of their own. Numerous sticks project in all directions for the pigeons to perch upon, giving to the locality quite a picturesque appearance, and numbers of waterpots are placed upside down for them to lay their eggs in. They are allowed to feed upon the grain at will, and certainly consume more than they are worth.

Later in the afternoon we stopped at Edfou, a temple 2,000 years old, in better preservation than any in Egypt, but unfortunately the faces of the gods and kings in the reliefs all over the temple were scratched out by the early Christians.

The day we reached Assouan was a glorious one. During the morning we passed Silsileh with its vast quarries of sandstone, from which the Ancient Egyptians took most of the material for their buildings. Many cartouches of kings from the earliest to the latest periods are to be seen. We stopped for a short time to visit the small temple of Komombo, situated on a hill commanding the Nile. Assouan was reached about 3 o'clock, and after tea we descended into a small boat and were rowed round the charming Island of Elephantine, afterwards taking a walk in the fascinating Bazaars; hundreds of bead and shell necklaces, spears and articles made of crocodile skin seemed to be the chief attractions.

Being obliged to put off making further acquaintance with this delightful place until the homeward journey, as the

"Prince Abbas" was waiting for us above the First Cataract, we left by the little railway to Shellal, embarking about 10 o'clock just above the First Cataract. Beautiful Philae was soon passed, her head rising proudly above the water. Since the opening of the Dam the Nile has been affected for about fifty miles. The palms which grew so luxuriously by the river side will ere long be dead. The feathery tops of the trees only could be seen. Government compensated the natives for every one of these date palms, enabling them to plant others in place of them. In an hour or two we came to the prettiest part of the Nile, a very narrow gorge, huge rocks rising from the sides, this was the strait of Kalabseh. Here a long pole had to be brought into requisition every few minutes to ascertain the depth of water. Near were two temples to be visited. One was much damaged by an earthquake shock long ago. Some of the gods and goddesses were painted in different colours, green, yellow, blue and red, and their faces had a coarse appearance with thicker lips and noses than those in lower Egypt. The natives too presented an entirely different type. These were jet black Nubians. The women had huge rings in their noses, and they and the little girls looked so quaint with their hair done into scores of plaits encircling their heads exactly like the pictures we see of the Ancient Egyptians. I believe when once plaited and soaked in castor oil it is not undone again for months, and this must be a somewhat trying ordeal as it is generally matted together with dust and sand. The girls and boys were wearing a little fringe made of leather thongs suspended from their waists. As usual the babies had dozens of flies creeping over their faces and eyes. It was difficult to take pictures of these people, one woman when she saw me advance with my Kodak screamed like a maniac and covered her face and her child's. But generally an offer of *bucksheesh* will bring them to reason. That same evening we stopped to see the rock Temple of Gerf Husen, stumbling along in the darkness over the rough ground with candles in our hands. On entering we lighted magnesium wire, and weird enough looked those huge figures carved out of the solid rock.

Early next morning the steamer stopped at Dakkeh. This Temple was built by Ergamun, king of Ethiopia, or Nubia, the land of "Cush" of the Scriptures. Ascending the Pylon the view of the Nile Valley in the early morning light with the mountains in the distance was glorious. Native children followed after us watching us curiously. They were better behaved and not such terrible beggars as the Arab children. We visited later Saboa "Valley of the Lions," so called on account of the Sphinxes whose heads just appear above the sand. The latter had drifted right into the Temple Court which was almost choked up with it. There is a marked difference in the appearance of the sand in Upper and Lower Egypt, here it is of a reddish golden tint, while in Lower Egypt it is of a pale straw colour. The balmy exhilarating air was delightful and on reaching Korosko we decided to climb the mountain to see the sunset. It was truly magnificent and well repaid our exertions.

We anchored for one or two days in front of the great rock Temple of Abu Simbel, the finest of its class known to exist, consisting of several chambers hewn out of the living rock. In front imagine four sitting figures side by side, each seventy feet in height, of the Great Rameses II. ! These form the façade ; the features have a noble expression marked by profound repose. What a marvellous mind this man must have had ! several of his children stand near him. Quite close to the Great Temple is a smaller one dedicated to his beloved wife Nefertari, six statues, each 30 feet high of Rameses and his Queen adorn the front, three on each side of the doorway, as well as some smaller ones of their children. The hieroglyphs explain that "Rameses the Strong in Truth, the Beloved of Ammon, made this divine abode for his royal wife, Nefertari whom he loves."

Leaving Abu Simbel, a few hours brought us to Wady Halfa, the Second Cataract. Nothing of interest is to be seen there. At 7 o'clock we boarded the little express train on the Soudan Military Railway and after an excellent dinner started on our way to Khartoum. We found our sleeping apartments very comfortable, fitted with electric bells and light, and running so smoothly, although the rails are only laid on the level sand. The next morning we stopped at Abu Hamed, where a number

of bath houses have been built for the use of passengers. Thoroughly refreshed we returned to the train for breakfast, and spent the rest of the day in the cheerful saloon. There was not much to be seen in the way of scenery, orange coloured sand stretching as far as the eye could reach, and here and there bushes of spiky mimosa. But the mirages were wonderful. It was almost impossible to believe that the pools of water in the distance with the palms reflected in their smooth surface were not real. The train stopped for a few moments at Berber, which owed its former importance to its position on the great caravan route to and from the Soudan, and soon afterwards crossed the Atbara on a long iron bridge. This river is one of the tributaries of the Nile, and brings down the water from the Abyssinian mountains after the great rains. Not far away are the Pyramids of Meroe and many others that have hardly been explored yet. We had been told to expect a very hot and dusty journey, but on the contrary, found it quite cool and pleasant. It was fortunate for us, however, being able to travel in January, no doubt later in the season the heat would be almost unendurable. We reached Halfaya, the terminus of the Railway about midnight, but remained in the train until the next morning, when we were conveyed by steamer to the Grand Hotel at Khartoum.

Soon after breakfast we went for a stroll along the Promenade by the river bank, passing the Sirdar's Palace, also the Gordon Memorial College, which was being brought to completion. It is an imposing structure and will be used as a Technical School where all useful trades will be taught, and youths will be trained by English and Egyptian teachers for an official career. Some of the Officers' Bungalows looked charming, surrounded by gardens and palm trees; and one can spend a pleasant hour or two in the Zoological Gardens, a military band plays there once or twice a week.

Khartoum, the Capital of the Soudan, is situated on the tongue of land formed by the union of the Blue and White Niles. The town was originally built by Mohammed Ali about 1823, and became an important trading depot for Egypt. During the rebellion of the Mahdi, Gordon was sent by the British Government to withdraw the Garrisons

in the Soudan, he entered the town in February 1884, and defended it against many odds for some months. When the gallant General fell in 1885, Ondurman became the Dervish capital and Khartoum was reduced to ruins, but since the recapture of the Soudan by Lord Kitchener, the city has grown up again and is improving by leaps and bounds. Stately buildings are springing up on all sides. Very wide streets are being laid out at right angles to one another, levelled and planted with trees. The Promenade is especially beautiful, it is two miles long, and an avenue of trees extends from one end to the other. The means of locomotion is by horse or donkey back, scarcely any carriages are used in Khartoum yet, the streets are hardly ready for them. In the centre of the town is Gordon Square; it was awaiting at the time of our visit the beautiful bronze statue of General Gordon seated on a camel, which was temporarily erected in London in the summer of 1902. A short time ago I heard it had arrived (after passing through certain vicissitudes) at its destination.

The Palace of His Excellency the Sirdar and Governor-General of the Soudan (on the site of Gordon's old house) is a magnificent building facing the river. British and Soudanese sentinels pace backwards and forwards before it, day and night. As seen from the Gardens it is lovely, being surrounded by shady palms and other trees although only about five years old, for luckily when the Dervishes razed the place to the ground they left the trees standing. The Gardens are extensive and bright with roses and all kinds of tropical flowers. A day or two after our arrival we had tea with the Sirdar and Lady Wingate in a charming tent decorated with oriental hangings facing the Croquet Lawn and near the Rose Garden. After tea Lady Wingate took us to see Gordon's Rose Tree, really grown up from the old ones he planted himself; and we saw her tame leopard. She also has among her pets a most curious bird with an enormous bill, it is something like a pelican, it moves slowly across the lawn or stands among the flower beds, looking at one solemnly with its green grey eyes, I believe it was brought from Central Africa. Then we strolled into the Hall of the Palace, the walls of which are embellished with different kinds of guns

and spears, and the spot where Gordon fell was pointed out ; a simple tablet bears the following words :—

Charles George Gordon,

Died 26th Janury, 1885.

As it was Sunday evening, towards 6 o'clock we all went in to the evening Service held in a large room in the Palace. Many officers and men were present. There is no English Church yet in Khartoum, but Lady Wingate is most anxious to raise enough money to have a handsome edifice built before long.

One day we went by steamer to Ondurman, three or four miles off on the other side of the river, passing on the way the junction of the Blue and White Niles. The waters of the two Niles are of an absolutely different colour. On landing we found donkeys awaiting us, and mounting, passed the Gum Market, where hundreds of natives were congregated, and rode slowly through the streets. The sun beat down upon us and the wind blew swirls of dust into our faces, but it was a most interesting day, and one not to be easily forgotten. Here the terrible atrocities of the Khalifa had taken place, and Slatin Pasha had lived in such close proximity to him for years never giving up hope of escaping at last. And here again the Missionary, Father Ohrwalder and other European captives lived in a quarter to themselves, plying simple trades, just getting enough to keep themselves and their families from starving. Father Ohrwalder and one or two others were lucky enough to escape. He, good man, has now gone back to Ondurman, where he has a school of upwards of four hundred pupils. And lastly the dreadful Saier Prison, where Charles Neufeld and others had suffered and languished in chains for so many years. Ondurman extends for about three and a half miles along the river, it was formerly a little village and had a small Fort during the Egyptian administration, but after the Mahdi conquered it he took up his abode there and it became a large town.

This wonderful man, Mohammed Ahmed, was born in Dongola of poor parents, who, however, claimed to be descendants of the Prophet. Being of a religious disposition he studied theology under various teachers and was a great

favourite with them all. After some years he went to Khartoum and became a disciple of the revered Sheikh Mohammed Sherif, to whom he became very much attached. After a time he went to the Island of Abba on the White Nile, where he lived for many years in a hole in the ground fasting and praying and was supported by his brothers who were boat-builders. People came to hear him from far and wide, for his reputation for sanctity had spread over the whole country. One day Sheikh Mohammed Sherif gave a banquet to celebrate an occasion of rejoicing in his family, and gave his guests permission to commit certain sins which were contrary to the Mohammedan religion and promised to pardon them. The pious Mohammed Ahmed hearing of this told his disciples that no man but only Allah could forgive sins. His words reaching the ears of his superior so angered him he immediately struck him off the list of his disciples.

Mohammed Ahmed was terribly upset by this treatment, and because he loved his master besought his forgiveness many times in the most abject manner. Sherif nevertheless cast him off and would have nothing more to do with him, so at last in despair and thoroughly embittered he decided to join himself to another order under Sheikh el Koreishi. Mohammed Sherif happening to hear of his intentions, and being jealous of Koreishi, commanded the young man to appear before him in order that he might forgive him, but Mohammed Ahmed, justly angered, would not go, and in consequence gained for himself much sympathy for having dared to disobey a superior.

He now thought the time had come to declare himself the Mahdi, the chosen one sent from Allah. Thousands flocked to him, all the gifts he received from them he distributed among the poor. As it was his secret intention to make himself master of the Soudan, he made journeys through the country, stirring up the people against the Government. More followers daily were attracted to his banner, especially the poorer people who had much cause for complaint, as the tax gatherers sent by the Egyptian Government were often very unfair in the gathering of taxes, taking bribes from and exempting the richer, but grinding down the poorer people to make good the deficiency. His chief Khalifa, Abdullah bin Mohammed, helped

him greatly with advice, and told him of the dissatisfaction of the people and the condition of the country, etc. In 1881 he and his Dervishes slew 200 soldiers who had been sent to seize him, the Government little knowing what a tremendous following he had gathered round him ; afterwards he defeated 7,000 Egyptian troops. In 1883 he annihilated Hicks Pasha's army, a month later Slatin Pasha surrendered to him,

Soon after General Gordon arrived at Khartoum on his fatal mission and the town was besieged by the Dervishes. But as Gordon had so few troops, and the garrison was quite exhausted from want of food, when the Mahdi attacked and entered Khartoum, on the 26th of January, the garrison was too weak to resist, and the town was looted by 50,000 Dervishes ; men, women and children were destroyed, except a few young girls who were sent over to the Mahdi's camp. A rush was made for the Palace where Gordon was standing on the top of the steps, and the first man to reach him plunged his spear into his body. Making a gallant defence, with blood pouring from him, he fought his way to the foot of the steps, where overpowered by numbers and covered with wounds he sank and died. Then dragging his body to the Palace entrance, they cut off his head, and sent it wrapped in a cloth to Ondurman, where it was shown to Slatin Pasha, then a prisoner in the Mahdi's camp. For many days the camp was given over to debauchery and wild excesses, and horrible atrocities were committed.

After the fall of Khartoum the Mahdi gave himself up to a life of ease and luxury, dressed himself in the finest of raiment and had numbers of wives to wait upon him ; some rubbed his body with oil of roses, others fanned him while he slept. His sway was absolute ; he was a handsome and powerfully built man, and had the three slits on his cheeks, as is the custom in the Soudan, but his life of ease and love of good food proved too much for him ; in June 1885 he died. No one knew the exact cause of death, but it was hinted by some that he died of poison administered by the Khalifa, Abdullahi, who succeeded him. The Khalifa erected a beautiful tomb over his remains which was surmounted by a dome, ending in three brass balls placed one above the other and a spear at the top, and its

height was about 70 feet. It was afterwards destroyed by Lord Kitchener to prevent its being made into a shrine by the Mahdists. The Mahdi's body was burnt and the ashes thrown into the river. Only the ruins of the tomb are now to be seen.

Not far away is the Khalifa's house exactly as he left it.* The roof is made of iron beams taken from Gordon's Palace. On the verandah he received his Generals in audience, seated on an angareb (native bedstead). To his people he appeared to live very simply, but his private rooms were furnished quite luxuriously, and he had a harem of about four hundred women; he was quite cruel to some of them after he had ceased to care for them. From time to time he held a review of his ladies, giving away to his Generals, or even his servants, those he was tired of, to make room for more, and like the Mahdi kept special favourites to rub him with oil. He never parted with his principal wife, Sahra, whom he had married in his youth, and who had shared his vicissitudes, and was the mother of his eldest son, Osman, whom he passionately adored, but he often quarrelled with her, and threatened to send her away.

Abdullahi was a most unscrupulous man, even his relations and best friends dared not trust him; he was vain, suspicious, cruel. Hard hearted to such a degree he loved to see quite innocent people suffer. During the Mahdi's lifetime he was responsible for the cruelties enacted in his name, and after the Mahdi's death no atrocity was too great for him to commit. He had a number of people killed every Friday after prayers, for the most trivial offences, and made his name a terror to everyone. If he did not cut off their heads, he relieved them of a hand or foot. One little trick he was fond of practising was to put the fresh skin of an animal over a man's head perforated with air holes, the shrinkage of the skin after it became dry causing death. He had one individual bricked up in a wall in such a manner that he could neither sit nor stand, he lived for three days in this position, food being administered through a hole in the wall. And

* A tablet has since been let into one of the walls as a Memorial to the son of the Earl of Carlisle, a correspondent of the *Times*; he got into Ondurman too soon before it had really fallen, and was killed there by an English shot.

another man lived for twenty-three days shut up in a stone building with only water to drink.

What the poor wretches suffered in the Saier (prison) is beyond description. Charles Neufeld, a prisoner of the Khalifa and in chains for 11½ years, we met when staying at Assouan on our return journey. He has taken up his abode there, Europe being too cold for him, after his forced residence in the Soudan. We had many interesting talks with him, sometimes partaking of a dish of dhurra with warm milk poured over and sprinkled with sugar, which makes a particularly nice kind of porridge. (The natives eat the dhurra merely boiled with water, it is the food of the country and is very strengthening). He said he entirely owed his life to Lord Kitchener's prompt rescue of him from the prison directly the British and Egyptian troops entered Ondurman. Had there been any delay his guards would probably have killed him even at the last moment. Why they had not had orders to do this before he could not imagine. During the whole of his imprisonment he was momentarily expecting death and indeed prayed it might come quickly, the terrible life he was enduring was worse than death, and being in chains the possibility of escape was rendered so much more difficult.

All the prisoners in the Saier had to be provided with food by their friends, otherwise they starved to death. The common cell "Umm Hagar," "the house of stones," measured about thirty feet each way, it was filthily dirty. For a short time during the day the prisoners were allowed to lie in the open, within the enclosure and get what sleep they could, but at night were driven into this small room, sometimes over 250 men occupying it at the same time. Sleep was impossible, and as there was no ventilation the heat became intolerable. All had to stand, and in order to secure a place near the wall to lean against, they fought, bit and kicked each other with their shackled feet, swaying from side to side and woe betide a man if he went down for he never rose again, several dead bodies were dragged out each morning. It was a veritable "Inferno," and when the prisoners were more noisy than usual, their brutal guards opened the door and slashed at their heads with their whips. When dawn appeared they were allowed to shuffle

down to the Nile, not far distant, in order to make their ablutions and get water to drink, but this privilege was afterwards denied them owing to several having made their escape, and a well was dug in the enclosure. When taken out of prison and his irons removed Neufeld could hardly stand from weakness and for a long time could not walk properly. His hair was nearly white, but after a few months gradually regained its natural colour. From his smiling face and merry laugh no one would suppose he had gone through such terrible trials, but sometimes when his face is in repose it has a worn and haggard look, and years have been added to his age.

Near the Khalifa's house stands the house of his son, Osman Sheikhed Din, who appeared to be the only person he had any affection for; on him he could not shower too many favours, he furnished his house in even better style than his own, robbing others and giving everything to his son he desired.

The entrance gate to the courtyard of the Powder Magazine where the Khalifa kept his stores, is made of Dervish spears, and just inside, arranged in a long row are the Gatling Guns lost by General Hicks in the engagement of 1883, but the Dervishes were unable to make use of them afterwards. Here we also found an interesting collection of flint and percussion guns, small cannons taken from the Dervishes at the battle of Ondurman, a motley collection of old clothes, Dervish uniform (jibbas), caps, etc., and some memorials of Gordon, amongst other things his carriage (which the Khalifa appropriated for himself),—a poor old piano in a dilapidated condition presented quite a pathetic appearance.

Mounting our donkeys again we rode through the cattle and camel markets, where hundreds of animals were being brought in for sale, and dismounted for a walk through the bazaars. Here we were besieged by persons from all parts of the Soudan wishing to sell us ostrich feathers, filigree work and weapons with sheaths made of crocodile skin, beads, shells, native shoes, etc. Most of the people looked contented and happy, and well they might, for they went in fear of their lives in the Khalifa's time. The roads are wide, and Ondurman is now clean, a great contrast to what it used to be, when corpses

of human beings and animals were allowed to lie about, and all kinds of filth.

We saw in the distance the battle field of Kerreri, where was fought the great battle of Ondurman, 2nd September, 1898, the Sirdar entering the city the same evening, and Mahdism came to an end that day. The Dervishes fought superbly, preferring to die rather than return to their wives defeated; indeed many courted death, men in the Soudan have been known to commit suicide rather than be called cowards by the women of their family. Seeing all was over the Khalifa fled back to Ondurman, and somehow succeeded in escaping from there, giving no little trouble until he was finally captured some months afterwards by the present Sirdar, then Colonel Wingate. A solemn duty was performed Sunday, 4th September. The funeral service was read for General Gordon at Khartoum, just outside the ruined walls of his Palace. Lord Kitchener and his staff were there, and representatives of every corps belonging to the expedition. On a signal from the Sirdar the British and Egyptian flags were simultaneously hoisted on the Palace, the gunboats fired a salute, and "God save the Queen" and the "Khedivial" hymn were sung. Then followed the funeral service, which concluded with "Abide with me," played by the Soudanese band, being Gordon's favourite hymn.

Returning to Khartoum with our purchases of feathers, ostrich eggs, crocodile skins, Dervish spears and guns, and a Soudanese lady's costume (which was rather a swell one as in addition to the usual leather fringe, it was profusely ornamented with shells) we were not sorry to rest for the remainder of the day.

Towards evening next day we rode out past Gordon's old fortifications to a number of Soudanese villages. Many tribes are congregated there, Baggaras, Shilluks, Dinkas, Jaalins, etc. Each tribe adheres to its own mode of living, although only separated by a short distance from the others. Some have huts like huge bee-hives, others tents, others again have little square erections covered with mats, hardly high enough to stand upright in and mats hanging over the doorway. They all appeared very merry, laughing and showing their glistening white teeth, and the different tribes, formerly at enmity, seemed

to be on friendly terms with one another. They have most of them fine figures, and the men are very tall, jet black and have coarse features. The majority were wearing the one cotton garment, and either a turban or skull cap on their heads. The women had most of them the usual costume, thongs of leather suspended from their waists and strings of gaily coloured beads round their necks. Some of them seemed rather shy as they do not see many Europeans, and as we passed along perhaps a woman or child would be just emerging from a tent door, but on our approach scuttled back again like a frightened rabbit, or the younger women snatched up pieces of long cloth, and wound round their bodies, the old women did not trouble. They wore no covering on their heads, and their hair was plaited into innumerable little tails hanging round their heads, arranged in the same manner as the Nubian and ancient Egyptian women. The children had no clothes. Each village is under the control of a Sheikh or headman who is responsible to the Government for the good behaviour of those persons dwelling therein. The able-bodied are employed in the town and are well remunerated. One tribe was pointed out as being formerly cannibals, and we were told that when a member of a family showed any signs of illness it was the custom to present him (before he had time to die or to get better !) to a neighbour, who sliced him up and ate him ; of course the neighbour returned the compliment as soon as an opportunity presented itself ; they did not consider it "the thing" to eat their own relations.

But the Baggara tribe is still held in detestation by the others. It was to this tribe the Khalifa belonged, and in consequence he gave them a great amount of license, in fact they seemed to do as they pleased with total disregard of the feelings of others. They stole the food from the men of the other tribes, and even their wives and daughters, and escaped unpunished, the other poor wretches hardly slept for fear ; happily all that is ended now. Formerly most of these people lived in Ondurman which was terribly overcrowded. Many thousands of Dervish widows are employed in Khartoum from here and other places ; of course they only get small wages, but they are contented enough, mixing mortar and carrying

bricks for the numerous buildings rising up all over the town, or conveying large tins of water on their heads for the gardens.

The day before leaving Khartoum five or six young Englishmen residing there kindly invited us to go for a trip up the White Nile. The weather had suddenly changed and it was excessively hot, but very pleasant on the water. We had afternoon tea on board charmingly laid out, and all kinds of iced drinks, and were a merry party. We passed on the way Gordon's Tree, where it is said that he waited and watched for the help that never came.

Returning from the Second to the First Cataract in the Government steamer *Ibis*, we called again at Abu Simbel, but as there was a high wind scattering the sand in all directions, were unable to see it as well as on our first visit.

Two or three weeks were spent at Assouan, at the delightful Cataract Hotel, which was full of visitors, Assouan being even a greater favourite than Luxor as a winter resort. The Prince of Schonburg-Waldenburg and his sister the Princess Louise were staying there. I had a glorious view from my window over the Nile and lovely Island of Elephantine. The days went by only too quickly, the mornings being usually employed in making little excursions to the numerous places of interest around and basking in the generous sunshine and dreaming the afternoons away in the pretty native boats so smartly decorated with numerous coloured flags; sometimes taking tea with our friends in the beautiful gardens of the Savoy Hotel across the water, or they would come to us, when there was generally a polo match to watch, donkeys being used instead of ponies, causing great amusement: there was always tennis and croquet to fill up any spare time.

We paid several visits to the Great Dam. This stupendous structure vies with any of the colossal monuments of the old Pharaohs, and will tell to succeeding generations that Britain had the Egyptian people's welfare at heart. It was not made by the forced labour of serfs; every man received his lawful wage. Here through the rushing water to a depth of 30 feet the immense wall of masonry was driven, rising to a height of 132 feet and 100-feet wide at the bottom. We rode on a little trolley from one end to the other, a mile

and a quarter in length. Part of it is built of the hardest granite and is as strong as the Pyramids themselves. The Barrage was opened by the Khedive in the presence of the Duke and Duchess of Connaught, 10th December, 1902. Fitting a silver key which had been made in the form of the ancient symbol "The Key of the Nile," into the starting switch of the motors, the sluices were opened, causing the roaring water to rush through. The last stone was laid by the Duchess of Connaught (the Duke having laid the first one February 1899). The inscription says :—

" This stone was laid
to complete the Dam
by H. R. H.

The Duchess of Connaught,
10th December, 1902.

In the 10th year of the reign of
H. H. Abbas Helmy, Khedive."

As the Dam is just below the Temple of Philae, the beautiful Island unfortunately had to be sacrificed, but the benefit to the country through the storing of the water will be enormous. It is estimated that the extent of cultivable land in Middle Egypt will be doubled, and millions of acres of arid desert will be transformed into arable land and millions of people will benefit by it. The Dam is six hundred miles above Cairo.

The great Granite Quarries of Assouan are interesting, from which the ancient Egyptian builders drew their supplies. An obelisk half hewn out is still to be seen. We returned through a Bisharin camp not far from the town; they were a curious, wild looking people with an extraordinary quantity of hair, very "fuzzy" on the top, and cord like plaits hanging all round. These wandering Arabs or "gipsies" live in tents covered with mats, and support themselves by cattle rearing. The wives make necklaces of different coloured beads and shells strung together with antelope hide; these the men and children sell in the town; dozens hanging round their necks give them a very picturesque appearance. Then the tombs excavated by Sir Francis Grenfell are well worth seeing, but I am afraid I did not give them the attention they deserved. Having discovered among the sand some curious blue beads which had

been dropped from the Mummies when they were removed, I scratched the sand over until I had collected quite a handful, and carried them triumphantly homeward.

Going down the Nile was a much quicker process than steaming up stream, and the steamer only stopped for a few hours at Karnak, Abydos and Tell-el-Amarna, on the way. Abydos was one of the most ancient cities of Egypt. The tomb of Mena, first king of Egypt, was discovered there. A great deal of it has not yet been excavated, but the Great Temple of Abydos begun by Seti I. and finished by Rameses II. was unearthed some little time ago. The bas-reliefs are exceedingly refined and artistic, and it was here the celebrated tablet of ancestors was found, the most wonderful and interesting genealogical record in the world. It contains seventy-six royal cartouches with the names and titles of Mena to Seti I. Depicted on the wall beside the tablet are the figures of Seti and his son. The father is pointing to it and telling the young Rameses to mind and be a good boy and fill the throne creditably as his ancestors had done before him.

Tell-el-Amarna was the city built by Amenhotep IV., or Khushnaten the worshipper of the sun-disc, when he left the old religion at Thebes. Part of a stucco pavement has been discovered which originally decorated a wall of his harem, it was quite different from anything else we had seen in Egypt.

Every day the Nile was getting a little lower, once or twice we were stranded on a sandbank, not a very pleasant experience: there is a sudden jerk, the boat stops, then sways backwards and forwards, in a few minutes it usually goes on again. Once we remained in the same place for two or three hours. When the Nile is much lower steamers are not able to travel on the river. In April and May it is at its lowest, at the commencement of June the waters begin to come down from the Abyssinian mountains with their fertilizing mud; in July the increase becomes very rapid; in October it is usually at its highest level. The bed of the river rises some inches in every hundred years. If the Nile could be dried up or diverted, Egypt as a country would cease to be. It would soon be a sandy wilderness.

On reaching Cairo we drove to Shepheard's Hotel again, having decided that it was quite the most convenient place to stay at. It has recently been greatly added to and is quaintly decorated in Egyptian style. There one is in the midst of everything. From the large verandah one sees a constantly moving scene, everything of interest seems to pass that way. The Khedive often drives by, the carriage runners in white muslin and beautifully embroidered zouaves are picturesque objects, as they run in front of the carriages to clear the way for their august master. And one is within easy distance of the "Savoy" where such delightful little dances take place. The Ghezireh Palace Hotel is a magnificent place with charming gardens, but is rather too far out. It is quite a rendezvous on Sundays. It was built by the grandfather of the present Khedive to entertain the distinguished visitors who came to the opening of the Suez Canal and is sumptuously furnished. One suite of rooms is still reserved for royal visitors. The Khedive has many palaces, where reside his numerous relations.

We had a gay time in Cairo, several British Regiments being stationed there; there is always something going on. A good deal of time was taken up in paying visits or going to receptions and balls. Once or twice we took coffee with Prince Mohammed Ali, the Khedive's brother, at his palace not far away. One night there was a Confetti Battle in the gardens at Shepheard's, the trees were hung with numbers of Chinese Lanterns and coloured lights, it was a scene from fairyland; a dance in the spacious Lounge brought the evening to a close.

We often drove to Mena House to tea to have one more look at the Pyramids. And another pleasant drive is to Heliopolis, (passing on the way the Virgin's Tree, under its shade the Holy Family are said to have rested), Heliopolis, the city of the Sun is the same as the city of "On" mentioned in the Bible. It was one of the most famous centres of learning of all antiquity. Here Joseph married the daughter of the High Priest of On, and Moses studied the "wisdom of the Egyptians." The Phoenix was one of the sacred emblems, which rising from its ashes symbolized that all that dies in nature shall revive to new life and glory. Nothing now remains of the city but a

very ancient obelisk, 68 feet high, which bears the name of Usurtasen I.

There are about five hundred mosques in Cairo, the finest being Sultan Hassan, a sumptuous building constructed from the casing stones of the Great Pyramid. It was rumoured that the hands of the Architect were cut off by the Sultan at its completion to keep the edifice unique. One mosque, which is very old, has over three hundred columns, nearly every one different, brought away from ancient buildings. Very interesting is the University Mosque, students from all parts of the world assemble there to be trained to become Mohammedan priests; hundreds of men and youths of all ages were sitting about listening to lectures or learning by heart portions of the Koran. Afterwards we visited the Dancing Dervishes. The High Priest entered wearing a green turban signifying that he had made certain pilgrimages to Mecca, other priests followed in black robes and felt hats not unlike inverted flower pots. After bowing to one another and walking round in solemn procession, they removed their cloaks disclosing short full white skirts, which, as they whirled round with increasing speed, gave them the appearance of ballet dancers. The performance was accompanied by chanting and the music (?) of drums and flutes.

The massive citadel erected by Saladin commands the city; an English regiment is generally quartered there. It was here the dreadful massacre of the Mamelukes took place by order of Mahomed Ali in 1811. He treacherously invited them to a banquet, and when the gates were closed ordered a murderous fire to be opened upon them. All perished except one who was saved by his horse, which took a tremendous leap over the parapet to the abyss below.

In old Cairo there is a Coptic Church, in the crypt of which, according to tradition, the Virgin and Child spent a month after their flight into Egypt. The Copts are direct descendants of the ancient Egyptians, and embraced Christianity when it was first preached in Egypt by St. Mark. They have stuck to their religion ever since, despite Moslem persecution. Great numbers live higher up the Nile, at Luxor Esneh, Edfou, Assouan, etc. They are cleaner and more respectable than the Arabs.

Then one can always pass a pleasant hour or two in the Bazaars or Mouski, the celebrated street leading to them. And although there is plenty of life, so many nationalities being gathered together, they lack the colour of an Indian Bazaar, chiefly perhaps because the women are all clothed alike in long black cloaks which completely envelope them, ugly black veils reaching nearly to their foreheads secured by long brass ornaments resting between the eyes allowing just enough room to see through. These costumes are certainly not so pretty as the bright hued, tinsel trimmed dresses of the Indian women together with their amazing quantity of jewellery. And the men from the Khedive downwards wear the universal Tarbouche or red fez. either with their European clothes, or long blue native robes. The Bazaars are always crowded. every necessary and unnecessary of life being laid out for sale, and a constant stream of camels, herds of goats, water sellers, snake charmers, etc., pass along. The Bab-*ez*-Zuweleh a huge gateway is curious. We noticed pieces of hair, old teeth, shreds of clothing, etc., hanging upon it, which had been placed there by sick and pious persons hoping through these offerings to be cured of their diseases.

We stayed at Alexandria for a few days before embarking for England, and from there went to Palestine for a short time. Modern Alexandria is not particularly interesting. There is nothing to be seen of the magnificent city founded by Alexander the Great B. C. 332, except a few ruins. The famous Lighthouse or Pharos, one of the seven wonders of the world, which was 590 feet high has entirely disappeared. Of the two granite obelisks called Cleopatra's Needles (but Cleopatra had no connection with their history) that were to be seen in Alexandria a few years ago, one stands on the Thames Embankment the other is in New York. They were made during the reign of Thotmes III. B. C. 1600, and Rameses II. about 250 years later added some inscriptions; they originally stood at Heliopolis, but were brought to Alexandria by Augustus to be placed before the Temple of Cæsar. The Obelisk given to the English by Mohamed Ali was taken to London at great expense and trouble in a wonderfully constructed vessel built for the purpose: it was some time on the

way, and once was nearly lost off the coast of Spain. It, however, fortunately escaped the perils of its adventurous voyage, arriving safely at last.

We saw some singular tombs only discovered in 1900, not far from Pompey's Pillar. These consist of several rooms, we reached them by descending a circular staircase to some distance below the level of the road. Workmen were still excavating. The carving is very fine. The Tombs belonged to a wealthy Egyptian during the Roman period, and are the most interesting of the kind that have been found. Many people must have been buried in the vaults, probably his dependents, for in some of the chambers we saw numbers of bones heaped up on shelves.

I wonder how long it will be before we see this wonderful Egypt again? Of course we shall go back, everyone does. The Arabs know this, for they say, "Drink of Nile water and you will return to drink it again."

C. MILLICENT KNIGHT

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Art. III.—SANSKRIT LEARNING IN INDIA.

IN a recent number of the *Calcutta Review* (July 1903) Pandit Hara Prasād Shāstri, of the Calcutta Sanskrit College, has contributed a short paper on *Sanskrit Learning in India*. When the principal of a Sanskrit College which he boldly asserts to be the "one institution in all India" where the university man and the *Pandit* can have the opportunity of a "mutual study" (?) takes up his pen to write on Sanskrit learning in India we naturally expect that he will elaborate some original idea or at least adumbrate some reform calculated to popularise the study of the language and the literature in which the spirit of ancient India is embalmed. But it is here that the writer has sadly disappointed us.

Intended originally to perform the part of one of those ephemeral productions which are read or recited at some function like the prize distribution of some educational institution and in which the chief merit lies in shortness—so as not to tire the patience of the august audience invited to spend an hour or so in hearing the production, the paper is a mass of vapid oratory and that of no very high order. On the 18th December 1902 on the occasion of the distribution of prizes at the Calcutta Sanskrit College, Pandit Shāstri, as principal of the institution, delivered a short discourse in which, of course, the institution claimed a larger share of his attention than Sanskrit learning. And we are somewhat astonished to find a shrewd man like the *Pandit* anxious to give it permanence by publishing it in the *Review* almost as it originally stood.*

The paper is a brilliant advertisement of the Calcutta Sanskrit College, a panegyric on the professors from their chief, a statement of how a considerable portion of the writer's time is "taken up with the research scholars, two in number, one of whom is studying paleography and the other investigating the Vaisuava Literature" (and we keep the writer's words like Mellin's Food "untouched by hand"), a declaration of

* The paper on *Sanskrit Learning in India* was kindly sent, at my request, to the *Calcutta Review*. I do not know that Pandit Hara Prasād Shāstri was "anxious" at all about the matter.—Editor, *Calcutta Review*.

the duties of the principal of the Calcutta Sanskrit College, an enumeration of the number of students who appeared at the last Upâdhi Examination and an indirect, though perhaps unintentional, hit at the Government for not doing all that it should for the institution. But there is little bearing on the study of Sanskrit.

Mr. Pedler, "our present Director of Public Instruction," gets more than his due for doing his bare duty; "my friend Dr. Cordier" is praised for his researches. But the amiable Dr. Profulla Chandra Roy is not considered aristocratic enough to be named. He has bare justice done to his researches by being referred to as "an eminent professor of a neighbouring college." (As if the Presidency College—the premier college of Bengal—is known only as one of the neighbouring colleges of the Calcutta Sanskrit College !)

Unfortunately the Shâstri who could have said something about the study of Sanskrit leaves that subject almost severely alone.

That the study of Sanskrit is indispensable for a proper understanding of the civilisation of ancient India is what nobody can deny and nobody will. For the history of pre-historic India we must go to the literature and the art relics of ancient India; and they are far from scanty. India will prove a fertile field for the labours of the archæologists. And we can hope that with a proper study of Sanskrit and a proper investigation of the art relics a comprehensive history of ancient India will no longer be considered an impossibility.

It is here that the alien Government was justified in centering its hopes on the Sanskrit Colleges established. But they have proved almost useless.

At the time when British supremacy was first established in India people of light and leading in England believed—like Burke—that in India the people had always looked up to the sacerdotal class—"an ancient, venerable priesthood, the depository of their laws, learning and history, the guides of the people whilst living and their consolation in death"—for everything connected with learning. They did not know that even the study of the *vedas* was not "banned and barred—bidden fare" for the Kshatriyas and the Vaisyas. Therefore

at the time of the establishment of the Sanskrit College at Calcutta no objection was raised when it was made a rule that none but Brahmins and Vaidyas would be allowed to study in the college (though one fails to understand why Vaidyas had been bracketed together with Brahmins.)

Long after the establishment of the College, Pandit Iswar Chandra Vaidyāsāgara, the then head of the institution, relaxed the rigidity of the rule. But in his report on the subject, dated the 20th March 1851, he wrote:—"The opinions of the principal professors of this College on this subject are averse to this innovation !".

It is not because in the College "Young Hindu lads begin their Sanskrit and their English (studies ?) at the lowest of their school classes and pass through all the University examinations up to the B.A. and through an examination system of the College and then appear at the M.A. examination in Sanskrit, and become an (!) M. A. in Sanskrit," and no concession is made "to the hardworking students of this institution by relaxing, in their favour, the hard and fast rule of having many compulsory subjects" that the College is not a "large institution with several hundred students." Nor can the fact that the College examinations embracing "all English subjects plus several papers in Sanskrit" are "by no means easy tests" be cited as one of the principal causes of the ill-success of the institution.

There is still another statement made by the writer which requires refutation. "There are two classes of men," he says, "who would gladly join it and study with eminent success, but they are unfortunately too poor, and cannot bear the cost of living in a costly city like Calcutta ; namely, the children of the Pandits and Vaidyas, and these are for many centuries accustomed to a subsidised education and to them to incur cost for education is a strange novelty." The idea of subsidised and free education has long lost its hold on the Indian mind. And the spectacle of the professor who takes his students into his family providing their food and lodging is daily growing scarce. There are many Brāhman, Vaidya and Kaystha students studying in the Calcutta Presidency College—paying a very high fee—but how many of them would willingly go to

the comparatively cheap institution—the Calcutta Sanskrit College—in spite of the significant fact that students of the Sanskrit College are taught science in the Presidency College?

Since a young man cannot hope to attain worldly prosperity without passing through the portals of the University, many an Indian parent has been known to minimise his meagre comforts to suffer privations and to become involved in debt to give his sons a decent education. Indian parents often go beyond their means to give their children the requisite education, and they consider it so essential, that Indian parents have been known to die of broken hearts on account of the failure of their sons in University examinations. Therefore the plea of poverty can as safely be dismissed as the plea of an idea about subsidised education.

The causes of the failure of the Sanskrit College are to be sought elsewhere.

The present management of the Calcutta Sanskrit College must, to a great extent, be held responsible for the moribund condition of the institution.* Next the relaxing of the rigidity of the caste rules—which rigidly fixed the social positions and occupations of men has brought an influx of students to the educational institutions that have sprung up to satisfy the needs of the people. For students from the so-called lower sections of Hindu society are now taking full advantage of the opportunities offered them. But it is still considered

* The *Pratibasi*, in a series of able and well written articles, has exposed some of the causes of the decline of the Calcutta Sanskrit College. We quote the following with approbation:—

“Our undying gratitude is due to the Government of India for its benign and thoughtful act of establishing in Calcutta the magnificent and palatial pile of buildings consisting of the Sanskrit College.

“It showed therein its earnest desire to preserve from decay, and to call back to healthy vigour the foundation of our language and of our religion.

“But when the Government did its part, so nobly and liberally—by presenting to us such a magnificent gift, it certainly expected that we would do ours by making good use of it. It expected that its affairs should be wisely and judicially administered. It expected that the principal who would rule and the professors who would instruct our youth therein, should be men of undoubted learning and repute: scholars known to fame in letters, but above all that they should be *eminent Sanskrit scholars*.”

Then the writer goes on to show how the “generous and paternal intensions of the Government” are being frustrated “by ‘Jobbery’ in its worst form—pitchforking unqualified men into positions as preceptors of our youth.”

And the writer’s criticism of the system of teaching in the institution must be considered just and his censure not only justified but well deserved.—(*Pratibasi* 18th January 1904.)

derogatory to the dignity of the Sanskrit College to sully its sanctity by opening the door of the sanctum equally to all caste people. The aristocracy of learning characteristic of ancient India has crumbled to pieces, still the Sanskrit College owing to a self-imposed rule which offers special opportunities to students of some caste and thereby seems insulting to students from the 'other' castes—cannot count upon students from all castes. We can understand—even if we cannot appreciate adherence to old social customs and social rules. We understand the changing of social customs and social rules with "the process of the suns." But we cannot understand the half-way measures adopted by the Sanskrit College.

But there is yet another thing. There is no special advantage that the student derives from the study of Sanskrit. He cares only to become a lawyer, and in case he is not fortunate enough to climb so high, he tries to secure some petty post in the service of the Government. And in neither case can a knowledge of Sanskrit help him. In the College he swallows Sanskrit (as almost all the prescribed subjects) as a bitter pill. And as soon as he leaves College he severs all connection with it. To him education is not an end by itself, but a means to an end. Hence he does not care to read more of Sanskrit than he is bound to do to pass his University examinations.

Love of learning for its own sake we have yet to acquire, and till that is done there is little hope of artificial encouragement leading students to study Sanskrit properly. The highest ambition of Bengalee students is to become lawyers, and the ambition of the highest among them is purely political. Literature is not considered aristocratic enough to enthrall their attention. And a tardy recognition on the part of the Government by offering meagre pensions is not likely to draw to the profession of letters many of our young aspirants.

In Bombay the mantle of Dr. Bhan Daji has fallen on Dr. Bhandarkar. But who is there in Bengal to be within measurable distance of the exalted position once occupied by Raja Rajendra Lala Mittra? The University is annually pouring forth a torrent of graduates; but how many of them

devote their attention to literature—how many aspire to become eminent men of letters? How many of them have distinguished themselves as brilliant literati? Bengal is distinguished by the absence of a single high-class English magazine conducted by natives.

The Sanskrit College of Calcutta was established eighty years back. But how many of the students who have passed out of the College have attempted to utilize their education and opportunities by attempting to write a history of ancient Indian civilisation by applying the modern methods of analysis and synthesis—a task they should have been by education best fitted to perform. The few names that are familiar to us as connected with antiquarian research and literature have—and it is a strange fact—little or no connection with the institution.

On the other hand some students of the Sanskrit College have abused their education by using the name of Sanskrit learning to disregard the commonest considerations of decency and prudence;—to disguise, under the high sounding name of original interpretation, sentiments and ideas which have and should have no place in civilised society. They have made indecency masquerade under the borrowed plumage of Sanskrit literature! Let us give an example. Some time back some stir was caused in the literary lines of Bengal by the publication of a study of the *Meghaduta* by a distinguished graduate of the Sanskrit College and a member of the Provincial Education Service. In Bengalee we have about a dozen translations of the *Meghaduta*. Pundit Prâu Nath Sarasvati Mr. Sâtyendranâth Tagore, I. C. S., and many other writers have striven to render it into Bengalee verse. It was translated into English by Wilson in 1813, by Max Müller in 1847, and by Griffith in 1868. But nobody could imagine before the publication of this precious study that the piece could contain such gross indecencies. By distorting some passages of the poem, the writer had written far-fetched explanations—the products of a diseased imagination—that made one blush to read. Poor *Kalidâsa*! It was an act of vandalism which roused the indignation of all sensible people. The Government ordered the author to submit an explanation, and not satisfied

with it compelled him to withdraw the book from circulation. "These *be* thy gods, O Israel."

There are indecent passages in Sanskrit works. And almost no ancient literature is free from them. But indecency in these ancient literatures is like nudity in ancient Greek figures. Like it this indecency never offends—for it never pushes itself to prominence. The ancient poets like the ancient artists never gloated upon indecency. But when a man who has received all advantages offered by western education and culture comes to distort passages in order to find some grossly indecent interpretation, one cannot but grow sceptic of the good influence exerted by this education in India. What are we to think of the education that had shaped his mind, of the perversity that had made him conceive the idea of such a work, of the barefaced boldness that had prevailed for him to publish it ?

More than half a century back Weber, the historian of *Indian Literature*, compared the subject of his history to "a yet uncultivated tract of country, of which only a few spots have here and there been cleared, while the greater part of it remains covered with dense forest, impenetrable to the eye, and obstructing the prospect." "A clearance," he said, "is indeed now by degrees being made, but slowly, more especially because in addition to the natural obstacles which impede investigation, there still prevails a dense mist of prejudice and preconceived opinions hovering over the land, and enfolding it as with a veil." What was true then is equally true to-day. And it is a pathetic sight to find a dozen pioneers striving to do the work of an army which has not followed them.

"Of all the classical languages, Sanskrit is that which has the largest literature. The number of Sanskrit books known to be in existence may without exaggeration be called stupendous. There is scarcely a department of human activity, not entirely modern, which Sanskrit writers have not dealt with at great length. And yet it cannot be said that this enormous literature has been studied in a comparative way in order to elucidate the exact condition of the early Aryan civilisation. The greatest Sanskrit scholars of to-day are Germans and Hungarians. We believe the finest collection of

Sanskrit manuscripts is to be found in the library at Budapesth. But the foreign orientalist who have made a study of the language have been rather inclined to devote themselves to that purely textual criticism in which the German excels. What is now wanted is an analysis of the historical and social conditions revealed—not by one book, but by a series of books. The genesis of the civilisation of 'India is wrapped in mystery. Such minor historians as have approached the subject of the Aryans have contented themselves with writing in general terms which convey nothing. For instance, the words 'ancient India' so frequently employed are used to cover periods of time which are probably vast. Indian civilisation could hardly have sprung into being in a few years. Evolution teaches us that the process of lifting a savage and barbarian race into a state which admits of the practice of the arts of peace occupies thousand of years, in course of which, from time to time, men of commanding genius are thrown up. One or two names have come down to us, Manu, Vikramāditya, Asoka, and even of these all that can be said with any degree of certainty is that the first won fame as a law-giver and the others as administrators. From far less evidence than is available in India, men have re-constructed the histories of Egypt and Greece, and Rome. From the scantiest of materials, by the simple method of comparative study there have been built up marvellous and succinct accounts of the rise and fall of the great Hittite Empire, the very existence of which was hardly suspected a few years ago. At the present moment historians like Sayce are coming to the conclusion that the Hittite, Chaldean and Egyptian civilisations were borrowed from India.

"In these circumstances the extreme importance of some accurate knowledge of 'ancient India' is manifest. And, as we have indicated, it is not that the material is not to be found. It exists in abundance. So far all that has been done is to extract from the Rāmāyan and Mahābhārat certain semi-historical narratives. But these books are in themselves in no sense histories. They deal rather with metaphysics than with narrative. But cannot there be found among German savants or scholars in India people capable of doing for this country

what men like Flinders Petrie have done for Egypt ? So far as India is concerned the trouble is that the Pundits, who have a real and deep knowledge of Sanskrit literature, have so imbibed the Hindu philosophical system and are so contemptuous of Western methods that they cannot be induced to undertake the examination of Sanskrit works in a critical spirit. To them all Sanskrit literature is sacred. They acquiesce in the contradictions which puzzle the Western learner. Moreover, they are the less inclined to undertake a comparative study because they are afraid that it may destroy the social order of which they are such upholders. On the other hand, the Indians of the cultured and Anglicised classes are of so practical a turn that they cannot be brought to see any utility in an arduous study which may bring no return. In this matter the Government has done all that it could. The failure of the Oriental College at Lahore was a sad blow to those who cherished the hope that a system of State support for students of Sanskrit literature would in time produce a school of Oriental scholars of the type that such subsidies are accustomed to do in Europe. In these circumstances one must perforce turn to Europe. It seems to be but a question of time for our archaeologists of the front rank to turn their attention to this country. There are few fields left to conquer in Egypt and Messapotamia. India offers both a virgin and a rich field, both for the pick axe of the digger, and the eye of the trained student. The mere fact that the home of civilisation has been traced farther and farther east must draw to India the attention of those who are fascinated by the past. The wonder is that no competent Egyptologist or Assyriologist has yet been drawn into India by the links that are now known to connect the early Aryans with a civilisation which after all is the civilisation which has survived in Europe."

It was to remedy the state of affairs deplored in the extract quoted above that the Sanskrit Colleges were established—to produce a set of men who, versed in oriental lore, would apply to their researches Western methods to gain the desired end. But the alien plant has not taken root in Indian soil and consequently has not flourished. The system followed imparts a superficial education which does

not bring out the faculties of the mind. And a love of learning for its own sake we have yet to acquire. Till that is so there is little hope of our having in our midst oriental scholars—versed in oriental learning, and born to oriental ideas and consequently able to enter fully into the spirit of oriental civilisation—rendering signal service to their country by applying to their researches the modern methods of analysis and synthesis.

What the Calcutta Sanskrit College could have done, in spite of all untoward circumstances it has neglected to do. It could have appointed professors able—by example and influence—to infuse into the minds of the students a love of learning. In the branch of study which should be the object of its special care it could have followed a system of education calculated to impart sound education.

We ought to feel ashamed of the fact that European scholars like Jones and Wilson, Lassen and Bournoff, Roth and Reinaud, Cowell and Colebrook, Muir and Max Müller, Arnold and Griffith—not to name a host of others—have done more for Sanskrit language and literature than all the Indian princes and *pandits* of the present day put together. Histories of Sanskrit literature have been written by many European scholars. But no Indian has as yet finished the work—the work so promisingly commenced in Bengal by Babu Troilokya Nāth Bhattacharjia being left unfinished on account of the plague claiming him a victim.

“Let knowledge grow from more to more,

But more of reverence in us dwell.”

In our case it is doubtful if knowledge has grown from more to more; but its apparent reverence has grown from less to less. Reverence for age and antiquity, reverence for learning and character, reverence for manhood and ability we have lost. Advertisement and machination, influence and deception play their parts in our private as well as in our public life. A deplorable depth of degradation. We in Bengal are fast degenerating into what our most popular writer of comic songs significantly calls—

“Curious commodities—human oddities.

A queer amalgam of Sasadhar, Huxley and goose.”

HEMENDRA PRASAD GHOSE.

Art. IV.—SIR A. SASHIAH SASTRI, K.C.S.I.—A FEW REMINISCENCES.

SOME reminiscences of the great man who has passed away and left a void in South India which, in some respects, it is not possible to fill, may be found to be of interest. Fragmentary though they be they may still serve to reveal points in his temperament, which could not be easily gathered otherwise. It is now more than twenty years ago that I was first introduced to Sir Sashiah. He was then Dewan of Pudukotah. The interview was over in a few minutes and there is little to record of it ; but it has left an indelible impression on the mind. In the furthestmost compartment of the first floor of his residence, he was reclining on a broad wooden cot, massive and plain, supporting himself on a huge pillow. A few feet off, in front of him, was a bench, equally solid and plain, which was meant for visitors. The compartment was otherwise bare ; the roofing was of the flimsiest material,—the twisted leaves of the cocoanut palm. The rigid simplicity of the place only served to set off the grandeur of the man. One unconsciously felt as if taken to a higher sphere of existence. He raised himself up as we approached. A slight effort was perceptible. It was inevitable in one of his ample proportions. In later years it became more marked and when one heard him say "*Svāmi rakshikka*" one knew it was a preliminary to a change of posture or "a migration from the blue bed to the brown" "*Svāmi rakshikka*," "may 'God protect' " was, in these later days, the phrase that one heard most often from his lips. He was saturated, from his earliest days upwards, with a deep feeling that all things were in the control of an all wise and all merciful Power. In 1847, when he was as yet a student barely 19 years old he gave expression to this feeling (in an essay which secured for him Lord Elphinstone's Prize) in the following words :—

"They (the wonders revealed by science) all tend to bring before our mind such a profuse vision of the order, harmony and miraculous wisdom of the Almighty Architect that the

philosopher who contemplates upon the scene, sinks within himself in humble adoration, exclaiming 'such knowledge is too wonderful for me—my understanding is overwhelmed by a wisdom which I cannot understand.' Thus to the eye of the scientific philosopher, the universe is an immense fabric raised upon eternal wisdom. . . . Comparing then this state of man with his primeval condition we cannot help giving vent to feelings of endless gratitude towards Him under whose providential care man has arrived at this pitch of refinement. Moreover, when we consider that the sum of civilisation from the day of his dawning on the sacred banks of the Ganges, although obscured by many a temporary eclipse, brightened and gained strength as he careered onward to the 'isles of the western main' we cannot refrain from pleasing ourselves with the hope that a day will come when man will reach that goal of perfection which seems to be destined for him. For

This infancy of being cannot prove
The final issue of the works of God ;
By boundless love and perfect wisdom formed
And ever rising with the rising mind."

The command of language, as shown here, is rather remarkable for an Indian youth of nineteen in the "forties." We also see here a certain fluidity and grandiosity of expression which a few years later Justice Holloway warned him against. Sashiah successfully got over the temptation and his later style has a chasteness and simplicity which it is rare to find outside the best English writers.

He could not abide the ground floor. He spent most of his time—day and night—in the second storey under a thin roof of the cocoanut palm, where he could, without moving from where he was, rest his eyes on the blue heavens or watch the floating clouds, when he could catch fresh, the breeze from the cocoanut palm and the mango and the music of their rustling leaves. He used to say "It may be a fancy ; but I cannot help feeling, here, in the upper storey, *elevated* above the petty worries and turmoils of the work-a-day world ; here one is *nearer heaven*."

His partiality for the cocoanut palm he would thus explain. "Of all things in the world commend me to the cocoanut

palm. It helps in bringing us into the world. It marries us and carries us to our final resting-place."*

Even when his ideas were not new he had a felicitous way of his own of expressing them. What he says; in one of his letters to an intimate friend, of Sir Charles Turner applies to him with equal force: "His style clothes even very old ideas in very new dress. it never degenerates to 'foam and froth' as did Lord Lytton's."

But to feel the spell of his words one must hear him talk. He was at his best in a select circle of old friends and intimate associates. There he threw off the reserve and a certain stiffness, which, after years of authority over those around, had almost become a habit with him. None knew better how to direct the conversation into fresh channels, to draw the retiring out or to set the circles roaring with his sallies of wit and humour. "Hold, Sir, for God's sake" implored on one of those occasions Rai Bahadur—a pensioned Deputy Collector and one of his intimate friends. "I can hold no longer (my sides)!"

The following extract from one of his letters gives us a glimpse of such occasions:—

"I saw Mr. at 9 A.M. (Saturday) and he kept me at conversation till 11-30 and even then broke off only because he thought it uncharitable to starve me in that way. He is indeed a curious specimen of the Civil Service. A short description will do but scant justice. So I reserve it all for a *tête a tête* in our porch over the Cauvery in flood. The rest of Saturday (breakfast at 1 of course—poor S—! who had to wait for his guest) and Sunday up to 5 were spent very pleasantly—all chatter and chat and laugh."

All chatter and chat and laugh. Yes, that best expresses these parties; and he was the life of them all, where each, be it remembered, was distinguished in his own way.

The humour in his letters, loses much of its force when bereft of the context. Perhaps the following specimen suffers least by a severance from the context: "P. S.—To *Amlu*

*The Hindu reader need not be told that the lying-in-room is generally improvised with a few screens of this palm; that marriages are celebrated under the palm shed or *pandal* and the bier is covered over with a rough bed of the same material.

belongs the credit of not despatching this letter last evening. Moral: Never trust children with such work. But it is all the same; perhaps better, as I can add to-day's morning news, of which there is none!"

His letters furnish delightful reading, even where there are no striking thoughts or humorous touches. The charm is in the manner—an unstudied flow and a genuine English flavour. He tells us in a letter how he writes his letters: "You must not mind much what I say in my letters, which are written at the spur of the moment, in any vein of thought or feeling that is then uppermost." That is the secret of the spell. Such off-handness, one is apt to think, might not succeed so well where descriptions are attempted. But let the reader judge; here are a few snapshots from his letters:

The following description, in a sentence is of a pond in the jungle. "It is a fine pond of water of light milky colour, surrounded by a jungle, half a mile deep all around, which can be traversed in every direction without fear of snakes or wild boars—except it be that you start now and then a deer, gracefully reposing in the shades."

He thus describes the comet that appeared in 1882: "Only this morning I was able to make the acquaintance of the illustrious stranger in the heavens. It was a little before 5 and early dawn. The moon in the west was very feeble and the comet appeared to great advantage in a clear blue sky tinged with the grey of the dawn. It was a splendid sight. It lay like a beautiful silver fish, poised gracefully in the abyss of space. I sat and looked on without intermission till in the insensibly increasing light of morning it grew less and less brilliant and faded away into a mathematical point and was then completely lost."

This of a sunset in the jungle: "Last evening I drove out to the jungle and from a spot on the road had a view of the setting sun the like of which I never saw before. It is impossible to describe the thousand and one fanciful forms which the clouds assumed and the infinite variety of glorious tints which they assumed, in rapid succession on a background of deep blue azure. While this display was going on in the west there were very black clouds with lightning swiftly crossing

from one to another, all along the eastern horizon and finally ending in columns of rain which were driven before the wind. In the presence of this gorgeous display what is the place for man's vanity or even for woman's vanity ! I mean going to the spot as often as I can to see if the same glorious scene is re-enacted or improved upon by nature and if its repetition can possibly tire me."

In conversation, his felicitous turns of expression, so apt and spiced with his peculiar humour, came upon one so unexpectedly. On the eve of laying down his exalted office of the Tondiman Regency the private secretary to the then Governor of Madras, Lord Wenlock (who had come to Pudukotah to instal the present ruler) said to Sashiah facetiously "And so the Regent expires this noon." The rejoinder came forthwith : "Death, official and otherwise, is a common enough event ; but it is something to be proud of that a nobleman of his exalted state of life, like his Lordship, should have come all the distance to deliver the final oration."

The members of a newly-formed literary association, with the enthusiasm of novelty talked of its manifold aspirations and contemplated a group photo of the members. "It were a rare feat indeed" said Sashiah "to take the shadow of a shadow." It required no prophetic vision of a high order to say that most of these associations in this country have only a butterfly existence ; but that expression—*shadow of a shadow*—seemed and proved its death-knell.

Once the conversation turned upon the misery of early widowhood. It was the time of Mr. Malabari's spirited appeal to the Government on behalf of these voiceless condemned. Some of us waxed eloquent on the hardships of the youthful widows. "Widows, do you call them?" said Sashiah, "they are the God-ordained saviours of the Hindu household—ministering angels of the home, finding their joy in the joy of those around. How round them are twined the hearts of all the family ! The relentless march of new ideas is sweeping away the earlier ideal : After all, life is meant for higher things than the mere gratification of carnal instincts." To some of us this course of thought was new and opened up new vistas of reflection.

He could extract enjoyment out of the most unpromising conditions. He had a fund of good humour, which, though ever held under curb kept his temper for him under circumstances which would have upset men less gifted. While at Pudukotah he instituted the system of petitions. Once or twice a week every body who had, or thought he had a grievance could approach him and be sure of a patient hearing. In one letter he writes to a friend that the petitioners thus heard on a Sunday evening and Monday morning were between three and four hundred. It must have been very trying work sometimes. On one of these occasions an old *maniam* (village officer) who had been retired on the score of old age, was the petitioner and said to Sashiah that he was, so far as years went, not so hopeless as some others he knew of, who were, however, considered fit enough for incomparably more exalted offices; and in a few other respects the advantage was decidedly with him. Sashiah smiled at the broad hint (or was it hit?) and satisfied himself that the man could read without glasses and write without shaking. "Where is the advantage that you talked of?" asked Sashiah. The man replied: "I can, and often do, *walk* ten miles at a stretch without fatigue." The minister mentally confessed himself baffled and reinstated the man in office forthwith.

The fact was that he was catholic in thinking. Honest differences of opinion, boldly set forth never ruffled him. When Mr. Porter, the celebrated educationist of Southern India, was coming in for a deal of bitter criticism for his outspoken advice to young India on the eve of his departure from these shores, Sashiah was amused at the display of spleen. Writing *anent* this to a friend, Sashiah says "Mr. Porter spoke too much of truth—forgot to gild his pill, which to young India must have been 'gall and wormwood.' I am glad he pricked the wind-bags. It is most amusing how the wind-bags are letting off their contents against poor Mr. Porter, their quandom 'guide' philosopher and friend."

In another letter he writes: "Young India most wants the virtue of toleration in matters of opinion, which is the pride of the Englishman and which is the Keystone of the arch on which his constitution and society rest."

Elsewhere he thus advises one of his friends : " Hear all they say but keep your own counsel. You have arrived at an age and maturity of wisdom not to mind differences of opinion which only give life to dull life. We shall do that which to our own judgment ' seemeth best ' and I am certain it would not betray us."

We can now well understand his philosophy of life which he thus sums up in one of his letters : " Well, we must face everything and try to secure for ourselves *some* pleasure amidst *much* unpleasantness. That I suppose is the verdict passed on man long ago."

It is in no spirit of vanity that he writes to a friend : " As to peace of mind, I think I enjoy it to a great extent under most circumstances."

Or this again : " Things will come round of themselves and if they don't I certainly shall not weep over it."

It is this frame of mind that has inspired one of his happy *bon mots* (which we find in a letter) : " Those who keep their temper before those who lose it, are doubly sainted."

It is just the temperament to cheat sublunary life of its sting : no sulking that you sow and others reap. As Sashiah puts it (this also in one of his letters, which are a veritable storehouse of wit and wisdom) " I am glad to hear of the little festivities in connection with the young ones, which, while relieving our pockets a little also relieve the dull monotony of life."

Again : " The bread winner of a family has little time for sharing its amusement. Neither does the master of the ceremonies enjoy the ceremonies himself." My happiness is to see that everybody else is happy and when all goes well my reward is reaped."

Kindness to servants he carried to a fault. Little things of some little value had once been, for some time missing in his house ; among others a silver plate. There was no clue though there were suspicions. The members of the ground floor were for a thorough sifting and giving short shrift to the culprit when found. There was Govinda Chetty, the wonderful diviner of Valangiman (just a few miles off from Kunbhakan). He would, with his second sight, unravel the whole mystery in a moment ;

and once the house was purged of the black sheep, there would be no more "things lost." Thus whispers ran downstairs. Sashiah was aware of the feeling below; but never would he show (till the time or the need came for it) how far he knew or what he thought. At last the whispers assumed shape and the steward was sent upstairs with the prayer that he might be allowed to consult the diviner at Valangiman. Sashiah readily gave the permission sought; and as soon as the stewards left, Sashiah turned to me (I was staying with him for a few days—in these later days almost all the time I could spare I was asked to, and did spend with him) and said: "You have not seen this man. He is worth seeing; reminds me, more than anybody else—of that hackneyed saying of Shakespeare 'There is more philosophy, etc.' For my part I do not like this business of consulting him on the matter. My suspicion is, the man is only a skilled thought reader and when consulted readily names the person you *suspect*, be he guilty or otherwise; an innocent person may thus be unjustly brought to book; but even otherwise, I cannot bring myself to turn out any of my servants, you know they are *all* tried men, having served me for years; and if any should have now fallen, sore, very sore must have been the temptation. A more generous policy would be to take greater care and place fewer temptations in the way and make it appear that the offender is known but condoned. Time and the guilty conscience will do the rest: but anyhow you will go and see the man and have a specimen of his powers."

I went: I was curious. The Chetty was sitting on the *pial* of his house. He addressed himself to me in particular. "You have come to test my powers" said he "so here goes." After telling us that a silver plate was missing and after *naming* the offender, who was none other than the person that had been suspected (all this while we had not given him the slightest hint, by word or sign, of our purpose) he thus wound up: "Why do you make so much fuss about a thing regarding which the exalted gentleman of the second storey is perfectly indifferent? He would only have you be more careful in future and would rather avoid the tempest in a teapot that might follow the exposure. *Live and let live* in his way of thinking."

The Chetty in reading Sashiah's thoughts had read him also with wonderful precision.

His mind was imbued with a reverent trustfulness in the Dispensations of Providence. He had also great faith in the *forms* of religious practice, that have been laid down by the ancient sages of the land. "Religious exercises," he writes, "discipline both mind and heart and contribute to the serenity of the one and the purification of the other." Of his son during his student days he writes: "I am making him cultivate the habit of early rising-- at five—and have put him to recite *Rudra Chamaka* and *Purushasūkta*,* so that he may have about him some traces of the old 'Aryan blood.'" *Some traces of the old Aryan blood!* It filled his heart with sadness and despair that young India was parting ways with the best traditions of the land, was just throwing off the traces of the old Aryan blood.

He was not for new departures in religious theory or practice. Of "Keshab Chander Sen and his new Dispensation he writes in a letter: "Keshab Chander was a great and public loss. He was a remarkable man with a wonderful command over a foreign language and an irreproachable high character for sincerity and truthfulness, zeal and piety. But the religion he wanted to create will die with him. As a matter of fact no new religion can even have life except ephemerally. In these days of free thought and free criticism, even the old religions are being torn to pieces. What chance is there for new ones, which, of course, will come and go as a nine days' wonder."

If he gave he gave right handsomely; or he kept quiet; he never held out false hopes; "cheeseparing" was an abomination to him. This princely spirit of liberality was remarkable in one whose early days had been a struggle for bread. His charity was the true metal—conceived and practised in the spirit which finds acceptance with the gods.

While I was writing his life, I had arranged with my publishers that one copy of the proof should be sent to Sir Sashiah and another to me. Sir Sashiah had kindly agreed to give my book the benefit of his revision. In the closing

*These form some of the holiest hymns of the Vedas

chapter I had devoted one paragraph to some of his charities in his village (very nigh on 8,000 rupees). His "proof" came to me with this paragraph *deleted* and with the following words in the margin: "This may have interest for you; but I should like it better omitted." That was done.

When Sir Sashiah sent on to me the very last proof sheets of the Biography he wrote to me: "Your labour of love is completed; the *very end* is not far off."

It is not one full year since he wrote these words and the end came so calmly, so peacefully the other day. In 1886—eighteen years ago—he write in a letter: "Often times within recent years have I thought it very improbable that I should live to date my letters 1886. But Providence has a programme of our course which is unknown to and unalterable by us."

He was always prepared for the final Summons; for some months past he had become so weak and powerless that he often felt life a burden and prayed for "*nunc dimittis*" and his prayer has been heard.

When in November 1894 he, after handing over the reins of Pudukotah to the present enlightened ruler, bade farewell to his freinds, he requested them to be "to his faults a little blind" and judge him as man should judge his fellow-man, when so judged it may be said of him: "He hath fought a good fight, he hath finished his course, he hath kept the faith."

B. V. KAMESVARA AIVAR, M. A.

Art. V,—THE SANSKRIT MANUSCRIPTS IN THE BRITISH MUSEUM.*

THE collection of the Sanskrit manuscripts in the British Museum, though not so large as that of the India Office or of the Bodleian Library yields to none in the variety of its contents, interest of the manuscripts, their literary value and the variety and the antiquity of sources from which they have been collected. The collection contains Sanskrit inscriptions from Siam and Cambodia, manuscripts copied in Nepaul and the Malabar Coast, written in almost all the variety of alphabets current in India for the last eight hundred years. It contains notices of Sanskrit works on Hindu Law commented upon and adopted by Buddhist commentators in Ceylon ; Mahayana works adopted by the Hinayanists of Ceylon and other curiosities of a similar nature.

Professor Cecil Bendall, M.A., the Cataloguist, requires no introduction to Indian readers. He is a student, the successor of the late lamented Professor Cowell and so a *prashisya*, a student in the second remove of Mahamahopadyaya Mahesh Chandra Nyayaratna, C.I.E. He had twice been in India and made the acquaintance of and endeared himself to the Indian pandits of all classes. His principal field of exploration, however, is Nepaul, and his special study is the Mahayanist School of Buddhism. He is distinguished from other Oriental scholars by the extreme accuracy of his observations and his minute and conscientious scholarship. He would not take anything on trust until he had himself examined the sources of an author's statement. In the hands of such a conscientious scholar the unique and ancient collection of Sanskrit manuscripts in the British Museum has received a thorough and careful examination.

There were altogether 559 numbers in the British Museum which may be attributed to Sanskrit ; of these 66 belong to the Vedas ; 59 to Post Vedic Religious Poetry, *i.e.*, Puranas,

* *Catalogue of the Manuscripts in the British Museum*, by Professor Cecil Bendall, M.A.

Mahatmas, and short religious treatises ; 50 to Law, religious and civil ; 75 to later Poetry and Belles Lettres ; 63 to Philosophy ; 39 to Grammar ; 30 to Lexicography ; 8 Rhetoric and Poetics ; 7 to Prosody ; 74 to Numerical Science ; 9 to Medicine ; 7 to Miscellaneous Arts ; Architecture, Erotics and Magic ; 7 copies of Inscriptions ; 13 to Buddhist Literature ; and 14 are later additions.

The oldest manuscript in the collection is a fragment of Yogayajnavalka on palm leaf $11\frac{1}{2}$ inches by $1\frac{1}{2}$ inches, the edges of which had been a good deal worn away. The character at first sight appeared to be later Gupta, but on closer examination Professor Bendall found it to be a character intermediate between Gupta and Nagari and he attributes it to a period between the ninth and eleventh centuries. There are some archaic forms which resemble the letters in Horiuzi palm leaves in Japan belonging to the sixth century, but Professor Bendall's criterion for fixing the antiquity of any Indian handwriting is very interesting. He says that the horizontal top stroke of letters is of later invention, the open tops are ancient, and so the proportion of the open tops appearing in any writing settles its date. Applying this criterion to the examination of the characters of the present manuscript, Professor Bendall comes to the conclusion that it belongs to a period between the ninth and eleventh centuries. This is approximately correct. The criterion was arrived at twenty years ago when only one Gupta character manuscript was known, *viz.*, that of Parameshwari-tantra in the Cambridge Collection, since then, however, several Gupta manuscripts have been discovered in Central Asia and Nepaul. A thorough palæographical examination of these manuscripts by a committee of experts may lead to more definite results.

The most ancient Buddhist manuscript in this collection is dated in Nepaul era 316, *i.e.*, A. D. 1196. It is written in hooked Nepalese character on palm leaf. The wooden boards covering the manuscript contain several illuminations of seated Buddhas, Bodhisatwas and others from which some idea may be formed of the excellence of Indian Art at that ancient age.

The collection consists of gifts and purchases from private individuals. Colonel Polier collected a number of manuscripts

in India between 1759 and 1789. He was a military officer of the East India Company some time stationed in Rajputana. He was a gentleman of Swiss extraction; he collected eleven manuscripts, all belonging to the Vedas. Professor Bendall says that this is perhaps the first collection of Vedic works ever made by a European. All the eleven, however, belong to the Rig-Veda. Colonel Polier was requested by Sir Joseph Banks, a trustee of the museum, perhaps, to collect the Vedas and so in a long letter, dated the 25th May 1789, still preserved in Add. 5346 of the museum collection, he complains how his efforts to collect the Vedas have proved useless on the Coromandel Coast, in Bengal, at Benares, in Oudh, at Lucknow, Agra, and Delhi. He at last sought the assistance of Pratap Singh, the Raja of Jaipur, and succeeded in obtaining copies, now deposited in the museum by paying a certain sum for a certain number of *anushtupas* or slokas which he mistakes for *ashtakas*. The only condition the Brahmin who arranged the pages (Raja Anand Ram, of Lucknow), stipulated was that the manuscript should never be bound in any kind of leather but always in silk or velvet; a condition which the museum authorities have literally fulfilled.

From the middle of the eighteenth century English students tried to learn Sanskrit and master the Sanskrit alphabet, its grammar and dictionary. Some of the ephemeral efforts of these early students have been preserved in the British Museum.

One of these is *Elementa Linguæ Sanscritæ*; in this work the alphabet has been arranged in a very curious way and full lists of combinations of vowels and consonants are given, together with a few consonant combinations. From the style of the Nagari character Professor Bendall infers that the teacher was a native of North-Eastern India. The *Elementa* are followed by a transliteration of the *Pater Noster* and *Ave Maria*. From the transliteration of C by ञ as well as some characteristic mispronunciations it may be inferred that the pupil was rather an unlearned French missionary. Pasted on the back of this work is a Chinese commercial stamp.

The *Parsiprakash* by Vedanga Raya is a vocabulary of Persian and Arabic terms used in Indian Astronomy composed

in 1643 for Shah Jahan (there are other works of the same name and of the same nature not treating of astronomy, known, to exist).

There is a Zend, Sanskrit, and Persian vocabulary in the museum, which contain, in Sir William Jones' handwriting a sheet of Sanskrit verbal roots arranged in a diagram with English meanings. There are also :—

(1) A vocabulary of Upanisadas, subscribed James Johnson.

(2) A vocabulary of the Upanisadas and Shivapurana (a motley combination indeed) by an English student, in the eighteenth century, with occasional English equivalents.

(3) A short French-Sanskrit vocabulary,—and other curiosities of a similar nature.

One would be curious to know how the two great religions, Hinduism and Buddhism, dwelling side by side for fifteen hundred years in India, influenced each other and modified each other, till at last one could scarcely be distinguished from the other. It has been recently discovered that Buddhism is still a living religion in Bengal, but it is so much blended with Hindu ideas, rites, and observances that it has to be discovered with great effort. Anyone who produces any evidence by which any period of the blending is made clear does a great service to the student of Indian History. In the examination of Kālavidhānpadhati and the Navapatal Sangraha of the present collection Professor Bendall has laid bare a period of this blending. Both these works are Hindu works on Sacraments or Samskaras, both have Buddhist commentators who write in Singalese. The first is a distinct case of adaptation by the Singalese Buddhists of Hindu customs. Even the Upanayana (investiture with holy thread) a distinctive Brahminic ceremony has been adopted by the Buddhists as presenting a boy to his teacher for initiation as a Vikshu. This initiation is now regarded in Nepaul as a mere sacrament. The boy comes to the oldest of Bānras of his Vihara and says as he is taught, "O ! Sir, the world is full of sorrow, save me from the world." The old Bānra says, "It is very difficult, very hard lines, you will have to fast, live on holy food, etc. Do not think of it." "No,

Sir," replies the boy, "I must be saved" and the Bānra initiates him and makes him Vikshu, invests him with a yellow robe and teaches the mantras. Five or six days later the boy comes to the Bānra and says, "O reverend Sir, these are very hard lines, I must enter the world again." The Bānra gives him some wine and meat to eat and the ceremony is over. The Nepaul Buddhist think this to be equivalent to Hindu Upanayana. In fact it is. The Singalese seem to adopt the whole Hindu ceremony in their initiation. The Buddhists also perform in a general way all the Sangskaras or Sacraments of the Hindus. The Jāinas do the same, some bring in Brahmins to officiate on these occasions, others employ Buddhist or Jaina priests, that is all the difference. So it seems that since the rise of Buddhism and Jainism in the fifth century B.C. the Brahmins have so far succeeded in modifying their tenets that they all accept the Sangskaras. The second work Navapatal does not seem clearly to be an adaptation of Hindu rites by Buddhists. It raises a suspicion that these might be the survivals of old Arian customs amongst the Buddhists of Ceylon which this work attempts to record. This is the first beginning of an investigation on these lines and it may be hoped that others better situated than Professor Bendall may continue it with advantage.

Of the Sanskrit authors in Ceylon one of the most conspicuous is Ram Chandra Kavibharati, a Bengali Brahmin belonging to the Kartyayana gotra, of Ciravatika, which the Singalese commentator, in his ignorance of Bengal geography says, "Rarh deshe Barendra mandale," *i.e.*, situated in the country of Rarh in the province of Barendra. But these two countries are conterminous and one is not included in the other. The Brahmins of either Rarh or Barendra have no Kartyayana gotra amongst them. Ram Chandra must therefore have belonged to a Baidik family of Brahmins who are found to be scattered all over Bengal. He wrote his commentary to Vriyaratnakar in 1455 when he was already made the Boudhāgama Chakravarti or the head of the Buddhist hierarchy under Parakrama Vahu who reigned from 1410 to 1462. Professor Bendall says that Ram Chandra was converted in Ceylon. But it seems probable that he was converted in

Bengal ; for in one of his Century of verses he distinctly says, " Let my King punish, let my relations forsake me, let Pandits deride, to me Lord Buddha is the only Saviour." He would have no occasion to sing in this strain while enjoying the highest respect in Ceylon. He seems to be one who was banished for his faith or degraded and compelled to fly from Bengal to Ceylon. .

The tone of his Bhaktishataka is not a Hinayanist tone ; it is distinctly Mahayanist. Mahayan still survived in Bengal in his time. Besides other evidences we have some from Professor Bendall himself. In his Cambridge Catalogue he speaks of some Buddhist manuscripts copied at Maldah by a Kyastha in 1446. In the present volume, too, he speaks of a Buddhist scribe copying manuscripts in 1479 V.S., i.e., 1423 A.D. for his Buddhist patron, who certainly was a man of consequence as in the Colophon he is described as a great Sthavira who is compared to the moon devoid of spots on account of the removal of all faults, extremely diligent in the preservation of Buddhistic initiation, a man of noble character and noble bearing. This patron, who is thus described, got the manuscript written for his own use and for the use of others. This shows not only, that there were great Buddhist monks in Bengal, but that they studied Sanskrit and, it seems made converts. Ram Chandra might have been one of these converts and so degraded by his caste men. He might have, however, been converted anew in Hinayana in Ceylon.

Professor Bendall leaves the question of the date of two great writers on Indian philosophy practically open, those are Vachaspati, Misra and Udayanacharya. He says that Vachaspati must have flourished between the time of Shankara (eighth century) and Amalananda who wrote in the middle of the thirteenth century ; and that Udayana must have flourished before 991 when Sridhara wrote his Nyayakandali at Bhurshut, about eleven miles west of Howrah. But the dates of these two illustrious personages have long since been fixed by manuscripts bearing dates of composition.

In a short treatise entitled Nyayasuchinivanda published as an appendix to the fourth fasciculus of the Nyayavartika edited in the Bibliotheca Indica by Pandit Vindhyeswari Prasad Dube, Librarian, Sanskrit College, Benares, the date of the

composition of that work by Vachaspati is distinctly given as Vasvastavasuvatsari, *i.e.*, 888 of the Saka Era, *i.e.*, 966 A.D. Similarly the date of Udayana has long been given in the preface to Atmatatwaviveka of Udayana edited by Pandit Jadu Nath Sarvabhūma of Navadīpa, the date is 906 of the Saka Era, *i.e.*, 984 A.D.

As regards the connection of Katantra Grammar with Buddhism Professor Bendall seems to be generally right. The treatise entitled Shatkarka by Bhavahanandi or Rabhashanandi is well known in East Bengal and is much studied there, though the invocation is distinctly Buddhist and smacks of Hinayana. No inference can be drawn from the fact that the copy of manuscript examined by Professor Bendall is written in Jaina Nagari of the seventeenth century. It would not be out of place to throw out a conjecture here that the author, a Nundi with a curious name Bhabaha or Rabhasha, may have belonged to that great Brahmin family of Pundra vardhana, surnamed Nundi, to which Prajapati Nundi, the minister of peace and war, of Ram Pal in the latter end of the eleventh century belonged. One of these Nundies, Shandhyakara, wrote a poem in *double entendre* entitled Ram Charita recording the deeds of Ram Pal Deva of Gour. Another Nundi named Kali Das wrote the Jayamangalgatha embodied in the Vallal Charita. One of the reasons which leads me to connect the author with this family is that in the eleventh and twelfth centuries the only grammar extant in Bengal was Katantra; others now current were mostly not composed at the time. And there was a taste for the minute study of the principles of logic as applied to grammar which are to be found in this book.

Professor Bendall seems to think that Vṛttikār and the Tikākār of the Katantra Sūtras is one and the same person Durga Sinha; this is extremely doubtful; the Vṛttikāra is a Shaiva while the Tikākār is a Buddhist. The Vṛttikār writes in a clear and concise style of an ancient writer, while the Tikākār clearly exhibits his marks of modernity.

As the Tikākār often cites the Vṛttikār by name it is clear that they cannot be one and the same person unless there be two Vṛttikāras of the same name.

The whole work is a monument of Professor Bendall's patient work for years, and we commend it to the favourable notice of Orientalists interested in the literature and history of India.

H. P. S

Art. VI.—THE RE-SHAPING OF THE CALCUTTA UNIVERSITY.

ἐκ τῶν ὑπαρχόντων ἀεὶ τὰ κάλλιστα πράττειν.

THERE is no longer any doubt, since Lord Curzon in his speech to Convocation has spoken out with such inspiring firmness and hopefulness, that the great change in the conduct and control of the Calcutta University, which many have wished and prayed for, but few till recently expected to see, is about to take place. The Universities Bill will become law, the new Senate will be appointed, the effective control of the university will pass into its hands; all will be ready for the work to begin. And then? . . . What is most evident at the moment is the greatness of the opportunity. The very greatness of the opportunity deepens the anxiety lest the opportunity should be missed. There have been important turning points in the history of the Calcutta University before, but never one like this. It is now possible to set to work in a thorough spirit to make the education which the university gives a sound one, guided by the experience and the mistakes of fifty years. Whatever is good may be preserved. If imperfections have become manifest, they may be cured or lessened. If mistakes have been made, they may be retrieved. The length of time that has passed since the necessity of reform was first spoken of, and the intensity of the light of criticism that has played upon the university, will now be useful. We know that mistakes have been made. We know what the worst of them are. We know the evils that have resulted and the exact nature of the remedies to be applied. If we cannot at once build up a perfect system, at least we can put right what has been most amiss. A few plain and simple changes in the regulations now in force would have at once the effect of greatly improving the education the university is giving. The particulars in which change is indispensably necessary are limited in number and admit of definite statement. These changes alone would not give us all that is wanted, but

they would remove the worst faults of the present system. They would, at least, make impossible the abuses which at present vitiate the education we have been trying to give. Strenuous effort-on a larger scale, animated by a sincere desire for the attainment of the best possible, and guided by good sense and good temper, might within a few years give Bengal a system of university education which all concerned might regard with satisfaction. Is it realized how great a benefit this would be, first, to the class which receives university education, and then to the whole country? Sound university education would give to Bengal a class of men really educated, if not in all cases up to a high standard, yet truly educated within the limits imposed by the actual conditions of the case. These men would be more and more valuable to the community in the professions, in the public service, in all the relations of life. They would be happier in themselves and increasingly win the respect of others. Above all, as teachers, they would pass on to future students at the most impressionable period of life, right ideas, right methods of study, right aims and desires. This could not but raise in course of time the level of attainment in all branches and grades of education. The schools would take their tone from the university, and as they have adopted the vicious methods of the past, they would adopt the sound methods now to be encouraged, and, as far as possible, enforced. This would affect the secondary schools, first, in a direct manner: ultimately it may be hoped it would affect primary education also indirectly through the better education given to primary teachers. The improvement in the schools would also in turn re-act upon the university by supplying in increasing numbers better instructed students for the Entrance Examination. First, an improvement and then a steady expansion of education in all departments is to be hoped and expected; but when the expansion came it would be solid and real, not as at present in large part illusory. A genuine advance and spread of education would be the ultimate result with all the benefits associated with the idea of progress. But the improvement in the quality of the education must come first. And to get the improvement certain definite reforms are indispensable. Given these reforms the improvement must

necessarily follow with all its train of beneficial consequences. Success in the work of reform within the university must ultimately confer benefits incalculable on the community at large. That the new Senate may carry its work through effectually and with success is therefore supremely to be desired. What are the grounds of hope ; what are the grounds of fear ?

Before casting this balance of hope and fear I propose, first, to define succinctly the particular changes in the regulations of the Calcutta University which I conceive to be indispensably necessary ; then briefly to state reasons for the necessity in each case. There will be substantial agreement, I believe (among those who have thought seriously of the defects to be remedied) in the following points :—We require :—

1. The omission from the Entrance Examination of the paper on a specially prepared text-book : or at least such a re-arrangement of marks and papers as shall greatly reduce its relative importance.

2. The omission from the regulations of all rules prescribing the proportion of marks to be assigned to book-work in mathematics.

3. In science the definition of subjects by syllabus, not by text-books, or fragments of text-books ; and greater insistence on the importance of practical work.

4. The raising of pass-marks in the Entrance and F. A. Examinations.

These four involve changes in regulations now existing. To these changes certain new provisions must be added, namely :—

5. An age-limit for the Entrance Examination of not less than fifteen* years.

6. Strict adherence to the standards fixed by regulation and the recognition of some simple and well-defined principle to restrict capricious license in assigning what are known as " grace-marks."

7. The contrivance of some effective check on the passing of examinations by means of matter learnt by heart and reproduced word for word by sheer effort of memory.

* Fifteen in deference to the Report of the Universities Commission, p. 46, paragraph 164 ; but I think it should be sixteen.

The last of these seven propositions strikes directly at an evil which vitiates the Calcutta educational system as a whole. The other six are in a sense relative to it, and in proceeding to offer reasons for the necessity of each of the changes indicated, I will begin with an endeavour to exhibit clearly what this evil is. Necessarily it is recapitulation—to many iteration most wearisome; but as my argument requires it, I make no further apology.

The failure with which the university is reproached is a failure in practical results. It is said that the men it turns out are not educated in any true sense, that the education it gives is largely a sham education. Why is it so? Why does the Calcutta University, in spite of its elaborate organization at present, fail to educate? Its courses as defined in the pages of the University Calendar are extensive and varied; its examination papers as they appear in the same calendar are searching in character. Its standards viewed in this way might even seem, as they have been called, rigorous and exacting. It is true that the averages of marks required for passing are suspiciously low. But this is by no means the whole explanation; and the remedy does not lie simply in raising pass-marks. There is a vice within the system more subtle and deep-seated, which does not appear in the calendar at all* and can only be thoroughly understood by those who have had a good deal to do with the actual teaching and examining of Indian students. On the mind of the teacher it gradually dawns in the course of long and painful efforts to teach that the Indian undergraduate does not, as a rule, really wish to learn. He wishes to pass examinations, which in itself is a natural and legitimate wish; but his conception of the way to pass examinations is by absorbing and reproducing words learnt by heart. He wants his instruction conveyed to him, whether by oral dictation or by printed annotations and summaries, in such a form that he can commit it all bodily to memory. He wants examination papers so set that he can write down, with more or less of appositeness according to a

* Not on the surface; critical and comparative study of the Regulations, and especially of the Rules for Examinations (pp. 149-158, Calendar 1903), reveals a good deal to the patient investigation with a clue.

happy knack of recognizing the suggesting link, portions of this mass of matter got by heart ; a paper which suggests the corresponding portion readily he calls " a good paper " (or in student language " very nice.")

Whether or no he understands what he writes down is an immaterial point. He may, but certainly very often he does not. Whether he does or does not, he sometimes passes. For the really extraordinary part of the business is that, to a great extent, he gets what he wants. He gets lecture notes and printed matter which he can commit to memory in the way described. He gets examinations which he can pass by writing down words learnt by heart. The marvel is not merely that the above is the average student's sole conception of how to prepare for and pass examinations, but that the university has bowed to the student's wishes in the matter and has adjusted its system to facilitate the smooth and easy working of this remarkable convention. The university has done nothing to counteract this theory and its application in practice, and has even allowed its regulations to be shaped in such a way as to countenance, if not actually to encourage, these vicious methods. When it is once thoroughly understood that students habitually pass the examinations of the Calcutta University in the way characterized above and that nothing is done by the university to check the habit, it is no longer wonderful that the university does not educate, but only produces a false show of education.

I cannot, of course, attempt to set forth here all the evidence of the truth of the above description. A great deal of it has been before the world in the published evidence of the sittings of the Universities Commission and in a number of pamphlets and articles written in the last few years ; the results are also embodied in official documents. I cannot, I think, more usefully supplement these sources of information than by quoting a few of several testimonies from students actually working under the system, which I have garnered at various times. One writes : " Success in the university examinations at the present day is not a success in the real sense, but a self-deception, except in a very few cases. The methods of the university examinations are not a true test of merit, it

tests how much we can cram up, and even this test is not an exact one, for it requires the candidates to reproduce one-third or one-fourth of what they have got by heart or rote. The consequence is that most of the students who, after passing the Entrance Examination, enter College cannot follow the lectures of their professors; far less can they master the text-books by themselves; but owing to the present system of examination they get their books by heart and take even their degrees in this way." Another says: "The best thing the university authorities can do, is to discourage cramming. First, they should lessen the number of text-books. Then they should proceed a step further and force the students to break themselves of the habit of getting up by rote the Notes of Indian annotators whose somewhat too copious annotations prevent students from putting forth all their mental powers in order to master a foreign language. Thus every student will be taught to depend upon himself, and so much the better for him; for he will begin to exercise his intellect." These extracts are from College essays, but I have every reason to believe the views expressed are genuine as well as sound. Another even more remarkable testimony came to me in the form of a letter and was entirely spontaneous, for though the letter was a class exercise the subject was different. The writer says: "In this letter I propose to deal to some extent with the evils that have crept into our system of education. Well, Sir, did you throughout your own student life in England, or during your stay in India as a Professor come across a student who could get through an examination by getting by heart the Notes only without reading the text at all? I daresay you never came across such a dexterous fellow. But I being a native of this land and fully acquainted with the tricks which students generally have recourse to, have seen many such men. There was one with me, while I was in the Entrance class. He managed to secure nearly 40 per cent. in English by getting by heart Mr. S——'s *Possible Questions with Answers on the English Entrance Course*. What other modern universities discourage, our university encourages Why are not examiners directed to give no marks to such answers as might appear to them suspicious?

By suspicious, I mean that are not in the student's own words. Many portions are learnt by heart without the student understanding them in his own vernacular." If this is what thoughtful students themselves think, is it surprising that some of their teachers have become convinced that the only hope of university education in this country lies in a comprehensive and thorough-going scheme of reform such as the Universities Bill makes possible? The evil pervades the system throughout, though its extremer forms are found in the earlier examinations. Yet it was only the other day that a friend of mine who had recently been studying for the M. A. degree told me that he learnt a translation of the extracts in his Anglo-Saxon Primer by heart, because he found all his Calcutta friends doing the same. Reason with your best students and they will actually maintain sometimes that learning by heart is practically the only safe method with them as things are, though, at the same time, they readily acknowledge the pernicious nature of the practice from a different standpoint. It is clear that the first thing to be done is by some means or other to break down this conviction, and this can only be done by a combined effort on the part of examiners supported by the whole weight of such influence as the university can bring to bear upon the matter.

This abuse of the memory in Calcutta examinations is largely, though not wholly, due to the weakness of the student's English. It tends in turn to perpetuate this weakness. The Entrance candidate has too little English to trust to his own ability to express himself and as he passes examinations nevertheless, he never has any compelling motive to force him to improve his English at all costs. The case is even worse; he is actually taught to rely on verbal memory in his school. By reliance on verbal memory he passes the Entrance Examination. He finds it easier, or thinks he finds it easier, to go on trusting to this verbal memory, and in too many cases, it is to be feared, he is actually encouraged to do so by the system. He goes on, therefore, as he began, with the result that as a B. A. student he is sometimes capable of falling into the crudest mistakes in the elements of English grammar. Defective English on the one hand and on the other reliance on merely verbal memory are thus the two ingrained faults which vitiate the

whole education. These two act and re-act one upon the other. We do not find that the university has ever really tried to grapple with these evils, either indirectly by altering the character of the Entrance Examination, or directly by passing rules to check this reproduction of words learnt by heart in examination answers. These two faults are, therefore, what we first have to try and combat both directly and indirectly now.

This establishes the necessity of the first and last of my seven propositions. We must henceforth have definite rules, or, at least, recommendations, plainly directing examiners' attention to the gravity of this vice of unintelligent abuse of memory and insisting on the urgent necessity of deliberately coping with it. It can be coped with, if only examiners will agree, as suggested in the student's letter which I have quoted, to give no marks to matter got by rote without intelligent understanding. This can be done and my point is that it must be done forthwith.

1. As regards the Entrance Examination it is clear that we should remove much of the temptation to trust to memory for words apart from meaning, if we so arranged the examination that no one could pass it without a fair knowledge of English. We can do this ; most effectually by abolishing the text-book altogether for examination purposes and making the test purely one of practical knowledge of English ; short of that we could still attain the end fairly well by assigning 50 marks instead of 120 out of 200 to the text-book ; 50 each to translation from and into the vernacular and 50 to an essay.

2. The reason for the second proposition is now equally apparent. In mathematics it should more than in any other subject be possible to secure sound training ; for mathematical quantities and symbols are neither English nor vernacular. At present this advantage is deliberately thrown away by specific regulations which make it possible to get pass-marks by learning book-work by heart. This, at least, can readily be altered.

3. The importance of making scientific work practical hardly needs elaborate argument. Mr. W. H. Arden Wood said in his evidence before the Universities Commission "The science courses prescribed at other universities show

how unmistakably it has been recognized of late years that the real value of the study of science is in direct proportion to the degree in which it is studied practically. Practical work is now insisted upon in quite elementary examinations. Again in the laboratory the student gets away from words to things, and I can imagine nothing more likely to do away with the reproach, against the Indian student that he is a slave to the mere word, than the encouragement of this side of his education. It would be a genuine step in the direction of greater efficiency.....The practice of the Calcutta University in prescribing text-books is at variance with that of most other universities, and tends to foster some of the most undesirable features of Indian university education."

4. The raising of Pass percentages generally is advisable on account of the confessed failure of the present system of low percentages ; and this raising of the standard is more conspicuously necessary in the case of the two earlier Arts Examinations. As to the amount of the raising there is sure to be difference of opinion. I am convinced that the best method is to shorten and simplify papers and insist on a relatively high percentage of pass-marks. In this way we secure exactitude of knowledge without making our test too difficult. If the principle is accepted, I think 50 per cent. would not be too high for the Entrance and F. A. Examinations in the totals, nor 40 per cent. in the subjects taken singly. Further in the case of Entrance English, we require for special reasons at least 50 per cent. These statements, however, must be understood in combination with the other half of the principle laid down, that papers are in all cases to be relatively short and easy. Allowance will thus be made, without sacrificing efficiency and accuracy, for the difficulty under which Indian students labour in having to write answers in a foreign language.

5. The age-limit is desirable in itself on general grounds, and is wanted as subsidiary to the other measures to be taken for raising the standard of accuracy and efficiency. It obviates objections to the changes proposed on the ground of the youth of some of the candidates. I must, for my own part, say, however, that I think the right limit is sixteen and not fifteen years. Sixteen years was the limit of age fixed by

rule when the university was first founded ; and, this rule continued in force till 1879. With a sixteen year rule we may ask a competent knowledge of English from Entrance candidates without fearing that we are asking more than can reasonably be expected. The absence of such a rule has been one factor in prosecuting the pernicious features in the Calcutta system for which remedy is sought to-day. There is besides the inconvenience of the presence of boys of thirteen or fourteen in College classes. They ought not to be there for their own sake and their presence confuses the standpoint both of teaching and discipline. Schoolboys should be treated and managed as schoolboys, while students are more fittingly expected to show a sense of responsibility. We want a clear dividing-line between School and College, and in fixing sixteen as the dividing line for Indian students we make sufficient allowance for differences of climate and social customs. The worst sufferers from the want of such a rule are the boys who are subjected to the forcing process which it renders possible. Among the Entrance candidates, are seen boys of twelve or thirteen,* mere children who would be fit subjects for the interference of some protecting society, if such an institution existed in India. Even in cases where the subsequent career has been successful one can hardly doubt that a boy would have developed more healthily in intellect and character, if mind and body had been allowed to grow together.

6. I do not propose to say much about the acknowledged scandal of "grace-marks." Something very much to the point will be found in Inquisitor's recently published pamphlet "The development of the Calcutta University," pp. 19 and 20 and also pp. 9 and 10. Nothing, perhaps, illustrates more strikingly how completely the practice has come to be regarded as an integral part of the Calcutta system than a remark made incidentally to the Universities Commission. In commenting on the weakness of English a witness is reported as saying : "At the B. A. Examination, A Course, more than twice as many 'grace-marks' have had to be given in English as in

* The Report of the Universities Commission, p. 45, paragraph 163, says eleven or twelve.

philosophy and more than four times as many as in mathematics." This gentlemen was neither condemning nor defending grace-marks, but the form of the expression shows how natural it has become to consider the assignment of grace-marks a matter of course, whenever failures in any particular subject are more than usually numerous. This is precisely the abuse of which those who denounce "grace-marks" complain. Reasonable leniency towards men who have done well in several subjects and failed by a few marks in one only is defensible enough. To use "grace-marks" as a sort of automatic regulator of examination results is utterly indefensible. Therefore some such rule as that recommended by Inquisitor is urgently required.

7. The abuse of verbal memory by Indian students can only be corrected by undermining their conviction that the safe way to pass examinations is to learn by heart. That conviction can only be overthrown by practical demonstration that those who learn by heart without understanding what they learn do not pass. This result must mainly be effected by agreement and co-operation among examiners. They must recognize individually and collectively the gravity of the evil and make determined efforts to combat it. They can do so by openly agreeing to give no marks to work which has plainly been learnt by heart unintelligently. Stern warfare must be waged with this inveterate vice and the conviction on which it rests until a change is effected. It is a question of the survival of the fittest. At present the "fittest" appears to be the student who can learn by heart the largest mass of ready made matter and most dexterously apply portions of it in answer to examination questions. We have to bring it about, that the fittest shall be the student who has learnt most intelligently. The examiner's duty is plain, and up to a certain point it is a simple matter, whenever in any two or more papers any part of an answer (other than a definition or a quotation) is given in the same words the unintelligent use of the memory stands confessed. In cases such as this it is simple to give no marks. In other cases detection may be more difficult and the possibility of mistake, greater. But there are still means of judging

and the examiner must deliberately pit his cunning against the candidate's. This is the duty of the individual examiner and of the examiners collectively. The university may help by rules or recommendations which explicitly direct the attention of examiners to this duty. One such rule might run—

"Examiners are requested to give no marks to matter plain-learned by heart and reproduced word for word from books or notes."

A special warning might also be placed at the top of every Calcutta Examination paper.

"Candidates are warned that no marks will be given for word for word reproduction of Notes."

The case is so exceptional and so serious that exceptional measures such as these are justified. I fear to exaggerate, yet again and again have been forced to recognize that exaggeration is almost impossible.

This is not, of course, a complete scheme of reform. A good deal more is required to correct all imperfections and work out a satisfactory scheme in completeness—as far as this can be done on paper. Among these further needs I should give a prominent place to the 'bifurcation' of courses for the F. A., and a more distinct separation of Pass and Honour courses for the B. A. But my present concern is with the minimum of reform which must be considered indispensably necessary and the formulation of the particular changes, in the existing system which together constitute that minimum. If the definite changes enumerated under my seven heads were effectively carried out, fair educational results might be expected; certainly much better results than we are getting at present.

This, then, is the work to be done—the main work, the first work, and the most necessary. What are the hopes of getting it done? What danger is there of disappointment?

The chief hope lies, in the new Senate. In spite of the extent to which public attention has been called to the abuses which vitiate the Calcutta system of education, there can be no sort of confidence that the necessary reforms would ever be carried out by a Senate constituted on the old lines. All the indications which have been afforded of the temper of the

Senate since the publication of the Report of the Universities Commission have tended to show the vanity of any such expectation. The hope of effective reform, therefore, depends on the men to be chosen as members of the new Senate. The new Senate will consist (presumably) of men carefully chosen for the work of reconstruction ; and it is further to be hoped that this will be true of the elected as well as of the nominated members. The responsibility which falls on those who have to make the selection is very great. But given the best men for the work in view, there will be good hope of success.

The hope of success depends next on the loyal co-operation of all concerned to make the work a success. The hope is that now attention has been called so emphatically to the nature and gravity of the mistakes which have been committed in the past and that the Supreme Government has intervened to take the initial steps towards thorough and efficacious reform, those to whom the further work is entrusted will not fail to show themselves sensible of the greatness of the issues at stake ; that they will carry the work through, with care and caution indeed, but unflinchingly. It is to be hoped that the new Senate as a body will recognize the urgency of the need of reform, and of the need of co-operation to effect it. It cannot be expected that there will be complete agreement as to all the means by which the end is to be attained, but it may be hoped that there will be complete agreement as to the end itself, and substantial agreement as to the most important changes needed. The end is to put a sound system of education in the place of an unsound. As to the means the body of this paper is an attempt to offer a plain statement of what in a moderate view are the particulars in which a working agreement may be expected.

To secure this co-operation practically when the work actually begins one other condition must be fulfilled. There must be a readiness to sacrifice personal and individual opinion for the sake of the common end. There must be even some subordination of the less to the greater in matters of strong conviction. Thoroughness must come first or the work of reform may as well be left alone altogether. No half measures will suffice. If the reform now to be instituted is to be effective it

must be thorough. There are some points on which all who are earnest about the true ends of education must take their stand. As regards these essential points there must be no hesitation and no giving way. But these points are few and definite. What and how many these essential points are I have been trying, according to my ability, to say. In the case of all other points something may justifiably be yielded for the sake of common action.

The fear is that after all the attempt to re-shape the Calcutta University to better purpose may prove abortive. Failure may come about in either of two opposite ways. It is not yet certain that the new Senate can be so chosen as to contain a working majority of men thoroughly alive to the real need of reform and possessing a clear grasp of the precise nature of the reforms needed. The forces of inertia and the natural inclination to feel near and obvious interests more than remote and ultimate benefits may prove too strong, and the reform scheme may fail for want of thoroughness. On the other hand through failure to see the necessary limitations imposed by the peculiar circumstances of an Indian university too much may be attempted. The attempt may be made to raise examination standards beyond the point of what is possible and practicable in India, not to speak of larger ambitions. It must not be left out of sight that we are dealing with the education of Indian students who seldom have an opportunity of picking up English in their earliest years, and seldom at all in a natural manner through intimate association with Englishmen. The Indian university student is handicapped by having to study in a foreign tongue and is further handicapped by the manner in which he acquires it. We must not prescribe courses for him as if he had spoken English all his life.

The claims of efficiency and the limitations imposed by the circumstances are difficult to reconcile. The best mode of meeting the difficulty seems to be to combine carefully limited courses of study with a high standard of efficiency within those limits. We must beware of trying to teach more than our students can learn ; but what we do teach we may teach thoroughly and what we test we may test strictly. We must

keep our ambitions within modest bounds and be moderate in the demands we make on our students. Practically it comes to this. We shall avoid complicating our examinations with many subjects. In subjects which must be studied in English, that is, English literature, philosophy, history, science, we shall be careful to limit our courses; we shall be careful not to make them long and difficult. We shall make them sensibly less than we should require of English students at the analogous stage of their education. But we shall set a high standard of thoroughness and accuracy. In contrast with the present order of things we shall not care how our courses look in the University Calendar, we shall care only for the real education of our students.

But perhaps the most serious danger with which the prospects of success are overclouded is the danger of the presence of faction within the new Senate. Some division of parties is inevitable. There are sure to be those who want to go a little further and those who do not wish to go quite so far: those who think that the standard of efficiency ought to be put a little higher and those who do not judge it possible to set it quite so high—Progressives and Moderates in educational reform. This is an inevitable division, a division which is natural and legitimate—even healthy. There must be difference of opinion as to the amount of change to be made. There must be those who think the changes proposed too drastic, or who think that more change is necessary or desirable. But no other division of parties is legitimate or natural. Unfortunately there is danger of other divisions. There must be possible lines of cleavage among the men forming the Senate; teachers and non-teachers, officials and non-officials, Europeans and Indians. It would be a disaster if party divisions should arise along any of these lines; most disastrous of all if the division should become, wholly or in part, racial. That there is some danger of this misfortune occurring it is idle to ignore. But it ought not to be allowed to occur and there is no need that it should. The question who is responsible for the faults of the Calcutta University and how these faults have been allowed to grow uncorrected is not, of course, irrelevant to the practical problem of

removing these faults. But the practical problem how to shape the university better is also a distinct question, and it is this purely practical problem which the new Senate will be called upon to solve. All the resources they can command will be required for the task. It is a practical educational problem of a difficult and delicate nature, and the gravest issues hang on the way the work is going to be done, whether well or ill. It is of the utmost possible moment that all should loyally unite to give their best efforts to the successful carrying out of the task. All personal consideration should be left out of account, all petty rivalries and jealousies laid aside. One and all should set to work with the singlehearted aim of bringing about the best results possible by unsparing and united effort.

Here appeal, as urgent as words can make it, must be addressed to educated Indians in Bengal who have any part or interest in this question. Certainly the quality of the education given by the Calcutta University is of far more concern to them than to anyone else. If the quality is bad, it is they who suffer; it is their sons who are badly taught and who incur the penalties of incapacity. If the quality can be improved, the benefits of better education are first and most for them and their children and their children's children. Will they, as a class, throw themselves across the attempt to make this education better, or be content to stand aside while the work is being done by others. Their co-operation is badly needed; it is doubtful if the necessary work can be done at all without it. Will they continue to withhold their support? At the present moment there is better hope of securing sound university education in Bengal, than has ever offered since the first years after the foundation of the Calcutta University. It will be a lasting calamity if this hope is disappointed for want of the loyal co-operation of educated Indians in the carrying out of the reforms which have been shown to be necessary. It is not a question of loyalty to Government, or to the University, or to class interests; it is a question of loyalty to intelligence, of loyalty to the very conception of sound education.

H. R. J.

Art. VII.—HERBERT SPENCER.

THE death of Herbert Spencer has set many journalistic pens in motion. Naturally these notices could not be very long, and, in many cases, were perfunctory, so that no very distinct notion of the deceased man's work could be gathered from them. It must, however, be clear to all intelligent students that a great teacher is gone, and a great work ended. Spencer's place is beside Huxley and Darwin; and these three between them have raised the level of English thought, and done imperishable honour to their country. Trained in his earlier years as a railway engineer, and endowed by nature with a singular union of observation and reflection, the tendency of his mind was always directed towards science rather than towards literature. Already in his 'prentice years he had established the principle, afterwards developed by the Frenchman Taine, that an organism must adapt itself to its surroundings if it is to endure and prosper. This was to lay the foundation of a new philosophy, for which, indeed, there was much occasion, for a brilliant journalist of the time had produced a History of Philosophy with the scarcely veiled purpose of proving that there was no such thing. When George Lewes' Biographical History of Philosophy appeared Spencer was in his twenty-fifth year, and was only known to a few readers of certain not very prominent periodicals. A few years later he became sub-editor of the *Economist*, where he remained for seven years, during which he published his "Social Statics." About this time a movement in thought was being originated by the successive publications by Darwin of monographs arising out of the famous voyage of the *Beagle*; and Spencer was not slow to observe that these discoveries harmonized with his own line of thought. In 1852 appeared his works on the Development Theory, and in 1855 "Principles of Psychology." Up to this time his writings had brought him in no profit, and he had only been able to bring them out by the fortunate accident of several small legacies that had fallen to him from

time to time : but in 1864 he attracted considerable attention by his onslaught on Comte's classification of the sciences. It soon became evident that a new system of the universe was being promulgated ; and all the work of the three great contemporary English thinkers was converging to the same point. Based upon original observation the hypothesis of evolution was being demonstrated, not merely by *à priori* reasoning, not merely by elaborate induction, but by a combination of fact and argument in the manner best suited to the national character. Spencer's share may be indicated by his well-known formula of the transition from homogeneity to heterogeneity ; whether a cloud of gas turning into a cosmic system or a speck of protoplasm evolving into an organized life. For any finite aggregate being unequally exposed to surrounding forces will become more diverse in structure : every differentiated part becoming the parent of further differences ; and this integration of parts, being accompanied by dissipation of force, will lead to rest, and ultimately to dissolution. Applying this to human affairs, he published from time to time other works on what is barbarously termed "sociology."

The "Principles of Ethics" in 1879 furnished a means of applying his Synthetic Philosophy to the subject of human conduct. The best conduct, he held, is that which best realizes evolution ; but it may be doubted whether morals, although esteemed by him the goal of all his labours, were ever treated with the same convincing fulness as some other branches of his vast system. Believing as he did in Determinism and Heredity, he laid equal stress on the importance of good habits. Instinct was the capitalized experience of our ancestors, but reason was the product of our own experience ; as all force follows the line of least resistance, a man might be instinctively thrown to do evil unless he formed new channels for the nerve-force by the cultivation of good habits.

It was characteristic of Spencer that he declined to follow the extreme Determinists to whom his position must have seemed illogical. The epithet "synthetic" which has been used above was employed by Mr. Spencer to indicate the noble system with which he followed Bacon's grand motto "I take all knowledge for my province ;" but a new epithet was

adopted by an American disciple, John Fiske; whose "Outlines of Cosmic Philosophy" (Boston 1874) gives the most complete and agreeable summary of the Spencerian system. Spencer's own style was dry and unsympathetic, a fault which George Eliot vainly endeavoured to cure; Fiske's work, therefore, may be doubly recommended, as being more complete and more readable. Spencer never married, and his long life exemplified a pure and high standard which in our days tends to become too rare.

H. G. KEENE.

Art. VIII.—THE INDIAN NATIONAL CONGRESS.

AN EPITAPH.

NOW that the noise and the bustle of the last session of the Congress have passed away and the fervid patriotism of the moment has had time to cool down, one may permit oneself a calm survey of the position that the Indian National Congress holds among the world's institutions and the part that it plays in the fortunes of India. It is rarely safe to prophesy; certainly it is never profitable for the prophet to foretell evil—even the professional astrologer recognises this cardinal principle. Nevertheless it is neither difficult nor inexpedient to cast the horoscope of the Congress and foresee its melancholy future with the logic of common-sense and in the light of reason.

In considering the circumstances that gave birth to the Congress, a few preliminaries need to be taken note of. Among the many things ushered into the country along with the British supremacy in India was a spirit of political discussion which the Indian people knew nothing of in their previous history. It may be fairly assumed, without any elaborate demonstration, that this spirit, however beneficial it may be to a nation with high political ideals and extensive political training, is not calculated to work much good if it prevails among a people who are almost new to political life and liberty. In the days before the advent of the British into India, the "mild Hindu," as he even now sometimes calls himself, was content to take the good with the bad, in a spirit of resignation and submission. But suddenly there was opened before his eyes a broad vista of political aspirations the result of the enlightenment and liberty that are ever in the vanguard of British civilisation. Well might he be pardoned if, dazzled by the new light, he allowed his imagination to run riot, and dreamt of wrongs and grievances done by a paternal and benevolent Government, when he had not dared to raise his voice against the atrocities perpetrated by the worst despots of earlier epochs in the country's history. The Government gave him facilities ;

he passed through the schools, colleges and universities which could not have existed but for them and developed into a "constitutional agitator" on novel lines.

The peculiarities of the Indian Congress commenced with the manner of its birth. Claiming as it does to represent the views and opinions of the Indian people, one would naturally expect it to have been the outcome of the efforts of a patriotic Indian or Indians. But no; it was otherwise. It was reserved for a benevolent foreigner to bring a few ardent spirits together and band them into the Congress. Now from his home, six thousand miles away, that foreigner, hoary with age, is watching over the young manhood of the infant at whose birth and baptism he officiated and to judge from the words he has addressed to his friends across the seas, the "Father of the Congress" does not seem to be at all satisfied with its doings or the interest that it has been able to create and gather round itself.

Let us for a moment look at the constitution and the methods of the Congress. It is not seldom that it is made to pose as the Indian House of Commons! No more unhappy comparison could have been made, no more fantastic exaggeration is possible. Only one fact can, if at all, give some colour to the claim—that the annual congregations of this "National Assembly" command the presence of as many delegates of the people as there are members of the Lower House. But then, what a vast difference there is between the two! Indeed, one would be inviting ridicule if one launched out into arguments to establish the difference between an assembly which joins in an annual chorus of complaint and lamentation and an institution which is the basis of the British constitution. One may be permitted to ask what the work is that the leaders of the Congress are doing throughout the year, beyond nurturing in themselves that spirit of discontent which finds such noisy expression at the end of it. Are any attempts being made to educate the masses? Are there constituencies which elect representatives to air their grievances before the "National Assembly?" True, we have at present delegates elected by some of the bigger townships, but we cannot even form any conception of the nature of the work these are doing, except attending the session of the Congress

and travelling at half-fare on Indian railways. Is it because the leaders have found the system of sending a representative from each borough to this "National Assembly" for a fixed period of years impossible, that the present unsatisfactory system of delegation is had recourse to?

We may pause for a moment to enquire what the qualifications are that may be demanded in a delegate. Our ideas on the subject are nebulous, we confess; but we fancy we are not to blame. Indeed, it seems any one who has any degree of local influence or who wants to "do" Calcutta, Bombay or Madras cheap can, as matters stand, secure for himself the honour of delegation.

Admitting the existence of grievances, how and by whom are they best represented? What is everybody's business is nobody's and so long as the present system of representation continues, it is not likely that the utility of the institution will increase. What ought to be done, if anything may be done, is the division of the country into electoral districts or constituencies, each of which must send its representative for a fixed period of years to this assembly. It was more than whispered some few months back that steps were being taken to give the Congress something like a constitution; but the mysterious secrecy that was preserved by those who were "in the know" left the general public entirely in the dark as to the nature of the changes proposed to be effected. Whatever they might have been, they would have been welcome; for nothing can be worse than the present chaos. But now it appears that the proposals have had to be abandoned under the counsel of wise heads who, in addition to other qualifications, can claim knowledge of the real strength and position of the movement with which, from its very inception, they have been associated. So the Congress remains without a constitution and in this respect, the smallest debating society, it cannot be denied, which can boast of a body of rules, is its superior. And yet a Congress wiseacre declared within our hearing: "Oh, we in Bombay are so advanced as to think that the constitution of England is no constitution at all!"

Whom does the Congress represent? Does it take up the poor man's burden, fight his battles and win success for him,

or is it an organ of the educated classes, kept alive to gain for them rank and official preferment, to increase their importance in the State and to press their claims before the Government? The Congress, by its accommodating programme, admits every sort of work within its scope and it is apprehended by those who, like Mr. Malabari, have been watching the growth of the "national" institution with sympathetic interest, that so long as no attempt is made to keep out incongruous and heterogeneous elements from the Congress propagandism, no really substantial work can be turned out. The interests of the masses are rarely identical with the interests of the classes and by professing to espouse the causes of both, the Congress falls far short of fulfilling its self-imposed duty to either. It is becoming increasingly obvious that the institution has ceased to be popular, that it is preserved as the organ of a few, and that its resolutions cannot be said to have the sanction of the people at large. It was only the other day that the *Amrita Bazar Patrika* was forced to confess that the so-called national assembly was the preserve of a few people who could make a speech in English. What a humiliation that admission must have been for a leading Congress organ to make! But the *Patrika*, whatever its faults, has never been lacking in honesty of conviction and candour of expression.

The man in the street, who is not as unintelligent as he sometimes appears to be, has little knowledge of the Indian Congress and less faith in it. With all the wealth of its assurances, its pledges to lighten his burdens and its pretentious resolutions, it appeals neither to his imagination nor his heart; and everyone who has seen the ordinary man contribute his pice to the collection-box of the Congress knows well enough that the benefaction proceeds not from any knowledge or recognition of the worth and value of the institution, but partly from the instinctive charity of the Hindu, and partly from the awe with which the poor man regards the personages who go out to beg and will not be denied. The average educated man, who may be expected to evince an intelligent and active interest in an institution which professes to strive for a political millennium in India, though he is not altogether unfriendly to it does not have any overweening confidence in

the ambitious programme of the Congress or the ready promises of its leaders. Receiving a liberal education which, whatever it does or fails to do, develops his critical faculty to a powerful degree, it is not to be wondered at that he does not permit his vision to be dazzled by the prospects held out by the Congress and that the complaints of the Congress and the difficulties of the Government are not easily distorted, out of all proportion, in the perspective of his intellect. Perhaps the only classes of people, (other than the leaders), who are distinguished by a fervid enthusiasm in the cause of the Congress, are the students and school-boys who indulge in idle visions of a great future wherein they fancy they are to play a leading part, and the idly-busy lawyers who, having little professional work, readily welcome the opportunity of having something to do and somewhere to go at the end of each year.

We now pass on to say a few words about the boasted utility of the Congress. The work of the Congress can be divided into two distinct branches—*viz.*, the "authoritative" expression of the grievances of the people, and a half-hearted attempt to educate the masses. To the generality of minds, this latter division of congress-work is rarely apparent, as there has always been a tendency—which has now become a reality—to miss it out of the Congress programme. Turning to the more prominent aspect of the Congress, it may be asked if the work that the Congress professes to do in this direction is not already done satisfactorily by another and a greater institution—the Native Press. With all its faults, its sins of commission and omission, the indigenous Press of India is a wonderful institution. In a few short years it has earned a remarkable prestige and position and has won the confidence of the people whom it represents, of the Government who are never averse to lend a patient and favourable ear to the authoritative expression of real grievances, and of the Anglo-Indian Press which, despite some journalistic skirmishes that must occur now and then, regards it with no unfriendly and unbrotherly interest. Looking at the questions that are agitating the public mind, it must be obvious to every fair-minded person that the full, frank and free discussion that we have in

the columns of the Indian Press on subjects like the Universities Bill and the Official Secrets Bill and the conclusions arrived at by learned and impartial writers are at least as authoritative and as likely to attract the favourable notice of Government as a number of resolutions passed helter-skelter in the course of three-days' sitting of the Indian Congress.

Coming to the subject of popular education, can the warmest partisan of the Congress honestly and with any fair show of reason contend that it makes anything like an honest and conscientious effort to infuse an idea of national life and to introduce wide-spread political ideals into the mass of the people by the publication of tracts and pamphlets, and by organising meetings for addressing and educating the working man, the agriculturist, the man in the street? What does the dweller in the village, who knows not English and has barely heard of the Congress, know of its ambitious work, how is he brought within the scope of its influence? The Vernacular Press, though no one can claim perfection for its methods or its manners, is certainly doing more substantial work than the Congress, in that its products exert some influence on people who reside in rural tracts and out-of-the-way nooks in India. The great drawback of the Vernacular Press is that it is but in few instances in the hands of competent people—that it is run more often by ill-read and rampant demagogues who earn cheap popularity by violent denunciation, rather than by capable and conscientious journalists. If these latter be placed at the helm of the Vernacular Press, there can hardly be any doubt that the best results will be produced. Turning over the accounts of the Congress of such years as accounts have been issued for, we gather that about Rs. 50,000 are spent annually to make the Congress session an attractive "political festival," as Mr. Malabari has so happily called it. The same Rs. 50,000, if only utilised in the rehabilitation of newspapers that, though deserving of support, have become defunct through lack of patronage and the starting of others under the control of competent journalists will be productive of far more substantial work, each day of the year than the most pompous resolutions, proposed, seconded and supported by a persistent parade of stock argument and stump oratory.

We are perpetrating a truism when we declare that within the ranks of the Congress, the utmost diversity of opinions and a general disagreement prevail. The leaders are hopelessly divided among themselves, and cannot inspire the same confidence in the rank-and-file as they did in the old days, when the Congress was young and the leaders could display and excite some enthusiasm. But how what a melancholy spectacle meets the sympathiser's eye ! In such an essential matter as the providing of a constitution for the Congress, the way for which the Madras leaders had fondly hoped they had cleared, one hailing from another Presidency, who is known to have the best interests of the Congress at heart and whose experience cannot be questioned, had to over-ride them in a rather unceremonious manner and postpone the all-important question to the "next year" as usual. The point has been won but not without creating considerable discontent and even some disruption in the camp.

Then again what is to be said of the bond of union between the leaders and the followers ? The latter indeed are a necessary set of people ; they can run errands, erect the pandal, feed the delegates and otherwise make themselves useful. But when they come to ask for any higher privilege than that allowed to a general factotum, the leaders are agape at their audacity and vouchsafe no conciliatory reply. When a gentleman, who believed he had qualified himself to express his views on the subject of one of the resolutions of the last Congress, aspired to the honour of being a speaker thereon, quoth a leader with more curtness than courtesy :—"You are only a First Grade Pleader, I don't see why *you* should speak." Other counsel, however, prevailed and the anxious aspirant's research and eloquence were not allowed to be lost to the audience or the cause.

The fact of the matter is the Indian Congress labours under a peculiar trouble. Paradoxical as it may seem, it has at present too many leaders and yet it has not enough. We mean, of course, that while the Congress can count at its head any number of people who have their own small factions, their little parties of adherents, it cannot boast of a couple of individuals who have the grit, the integrity, the magnetism,

of a pure and high personality, of a Gladstone, a Chamberlain or a Beaconsfield, which can appeal to the feelings of a nation, claim the reverence of a people and make them willing followers. Outside the Congress meetings we never see the leaders mingling with the multitude, speaking to them in the languages they can understand, educating them on the rights and responsibilities of citizenship. The mob never sees these leaders, does not hear the ring of their voice, the music of their speech. In short the attitude of the Congress towards the man in the street is one of absolute apathy and contempt, and of the man in the street to the Congress one of ignorance and indifference.

The subject of leadership in the Congress camp some time ago gave rise to an animated discussion in the columns of some of the leading organs of Indian thought and in the course thereof, many an unpleasant but incontrovertible statement was made which could not but give offence to those who were anxious to whitewash the sins of the Congress and varnish the motives of Congress leaders and followers. The correspondence columns of the *Madras Mail* were at that time dragged into the orbit of that discussion, and the general tenor of the letters, that appeared on the subject, indicated an unmistakeable indictment against the majority of those who had joined the ranks of the Congress. A love of notoriety, a desire for personal aggrandisement have led not a few to ally themselves with the Congress; but we are all glad to acknowledge that there are some honourable exceptions. The fact remains, though we regret to admit it, that too many of those who profess to look on the Congress as their mother, "trade upon her resources or her reputation."

We cannot conclude this article without a few words about the Industrial Exhibition. We may grant that in the course of an indefinitely large number of years, vast improvements may be made in the arts and industries of the country, on account of this institution; but in the meantime, one who can read between the lines can reasonably suspect that the Exhibition was started to bolster up the Congress and maintain its former hold on the few thousands who congregate at the Pavilion every year. We are tempted to read in the institution of the Exhibition a tacit acknowledgment of the

Congress leaders that the Congress is a sinking ship requiring to be towed across the high seas by a fresher and stronger vessel. Besides, from the beginning of the later institution, steps were taken to enlist in its favour, the sympathies of the Government and the active support of officials. The Government of Madras have done wisely in trying, as far as it lay within their power, to keep the two institutions apart by insisting as a preliminary to the promised grant of Rs. 10,000 that their accounts should be kept distinct and separate. They have, by this step, given the Exhibition a *quasi*-official character. The action of the Local Government excited a flutter in the dovescotes of the Congress; but when all is said the inference is obvious that, if the Congress leaders were wise, the Government are wiser and desire to separate the Exhibition as much as possible from the Congress so as to make them mutually independent.

And now, how does the Congress stand? Melancholy as it is to confess, it is abundantly clear that it is on its last legs if we may use the expression. Disruption within, disaffection and unpopularity without, a growing expense that is met by the people grudgingly, a superfluity of bad leaders and a paucity of good ones—these are among the symptoms that embolden us to hazard the remark that the Congress is doomed to die at the end of a few short years. Its birth and its growth were phenomenal; never in the history of the world has there been another institution, with such ambitious aims and so hopeful of a glorious future, which grew up in so short a space of time. But the Congress was built up literally in a day. There was no period of slow evolution, of gradual development from childhood to man's estate. It was born a bulky, full-grown creature, and as nothing can stand still in nature, without undergoing alterations of any kind, without increasing or decreasing, improving or degenerating, the conclusion is irresistible that since it *will* not improve, the Congress must degenerate, since it *will* not take any of the precautions to live, it must die. And what a death it promises to be—more phenomenal than even the birth! To-day, a living fact, with all the show and trappings of life;—to-morrow, a mere dead name, the memory of a thing that was!

T. V. SUBRAHMANYAM.

Art. IX.—“ST. MICHAEL OF THE CHRISTIANS AND MITHRA OF THE ZOROASTRIANS—A COMPARISON.”

THE Zoroastrian Scriptures speak of seven Amesha Spentas¹ or Archangels. 1. Ahura-Mazda, 2. Vohumana, 3. Ashavahishta, 4. Khshathra-vairya, 5. Spenta-ûrmaiti, 6. Haurvatât and 7. Ameretât. If Ahura-Mazda, which is the name of the Almighty Lord, is not counted in the list, the number of Archangels is six². Similarly the Jews have seven Shadim or Archangels. 1. Michael, 2. Gabriel, 3. Raphael, 4. Uriel, 5. Chamuel, 6. Japhiel and 7. Zadkiel. Dr. Kohut says on this subject “It is worth observing that the fluctuation between the number of six or seven of the Amesha-çpentas, indeed, according to as Ahuromazdao is counted or not in the class of the Amesha-çpentas of yst. I, 36³; 2, 1-6 recurs also in the Jewish Scriptures. Thus the so-called Jerusalem, Targum to Denter. 34, 6 and the book of Enoch C. 20, where the list of “watching Angels” is counted up—gives only six; the Book of Tobit 12, 15 and of Enôch C. 90, 21 give seven as the number of the Archangels. The latter is probably the more correct assumption, which then corresponds even to the Christian seven Archangels⁴.” As pointed out above by Dr. Kohut, the Christian Scriptures also speak of seven Archangels or the seven spirits of God⁵. Similarly we find the “Divine Powers” of the Neo-Platonic Philosophy of Philo Judæus corresponded

¹ Hapta Amesha-Spenta, Yasht II., 13, ² Yasht I., 25. ³ Spiegel, Yasht I., 37. Westergaard, Yasht I., 25.

⁴ “The Jewish Angelology and Demonology based upon Parslism,” translated from the German of Dr. Alexander Kohut, by K. R. Cama, p. 4 n.

⁵ “And I beheld, and, lo, in the midst of the throne and of the four beasts, and in the midst of the elders, stood a Lamb as it had been slain, having seven horns and seven eyes, which are the seven Spirits of God sent forth into all the earth.” Revelation v. 6.

“And I saw another sign in heaven, great and marvellous, seven angels having the seven last plagues.” *Ibid.* xv. 1, also 6 to 7, VIII. 2, XVI. 1, Zechariah vi. 10.

“The seven holy angels which go in and out before the glory of the Holy One.” The Apocryphal Book. Tobit ch. XII. 15.

Cf. Milton.—

“The seven who in God’s presence nearest to his throne
Stand ready at command.”

to the Amesha Spentas of the Zoroastrians. These "Divine Powers" stood "closest to the Self-existent."¹ They were six in number. Including the self-existent, their number was seven. The Gnostics also "taught that the universe was created by the Seven Great Angels."

Among these seven Archangels of the 'Hebrews and the Christians, Michael is the first. The object of this paper is to compare or identify this Archangel, with the Mithra of the Avesta, or the Meher of the later Persian Books.

As Dr. Kohut says "The belief in the existence of superior beings, endowed with a perfect spiritual disposition, was in ancient times a commonly prevalent one. In reality even the great progressive range of existence, that rises up from the inanimate stone to human beings leads to the assumption, that over these there must be existing again a class of beings with superior intellectual endowments to those of mankind—an assumption, against which even from the standpoint of modern thought there is nothing to object."²

Thus then there is no wonder, if we see the belief in the existence of Angels common among the ancient Zoroastrians, Hebrews and Christians. What strikes one is the similarity of the ideas about these Angels in the scriptures, in the later books and in the sacred and legendary art of these nations.

It has been pointed out by several eminent scholars, like Revd. Dr. Mills, Revd. Dr. Cheyn, Dr. Kohut and others that the ancient Zoroastrian ideas had influenced, to a certain extent, the religious ideas of the Hebrews. Dr. Kohut says "all these local and chronological data agree with the assertion, that we suppose to be the result of our researches, that the exiles in their domiciles in Persia and Media, adopted and made current among themselves, much from the Zoroastrian religion, for example the inner economy of heaven and hell, pre-eminently however the ideas touching the genii."³ So the Jewish Angelology and from that, the Christian Angelology was replete with Persian influences. Of the seven Archangels

¹ "Philo Judæus or the Jewish Alexandrian Philosophy," by J. Drummond, Vol. II, pp. 82-83.

² "The Jewish Angelology and Demonology, based upon Parsiism," by Dr. Kohut translated by K. R. Cama, p. 1.

³ *Ibid.*, p. 8.

of the Jews, Michael the very first is identified by Dr. Kohut with the Vohumana or Bahaman of the Zoroastrians.

Dr. Kohut thinks that the Jewish people took their ideas of the "Angel princes" not from the Amesha Spentas or Archangels of the Persians but from their later Zoroastrian Yazatas or angels. He thinks that the very "appellation Malak-i Hushrat (used in Jewish books) as the collective designation of Angels is borrowed from the Parsee Yazatas."¹ On the question of this borrowing he says "It is therefore quite a natural proceeding, if the Jewish people and their organs, which are the Haggadists, depended for the characterisation of the 'Angel princes' not on the already blasted Amesha-spentas but on the later Zarathushtrian genii. . . . Only with Michael it seems to have an especial condition."² I think that in the case of Michael also, it is no exception, and there is no "especial condition." His characteristics also are not taken from any Persian Archangels—from Vohumana or Bahaman as Dr. Kohut suggests—but from an Yazata or Angel, and that Yazata is Mithra.

Dr. Kohut advances the following points of identification to show, that Michael of the Jews is the same as the Vohumana or Bahaman of the Zoroastrians.³

1. As Vohumana is first of the Archangels, so is Michael, the highest prince.

2. Vohumana has to see, that good thought, peace and friendship are preserved among men (Yasht III). So "In Michael is symbolized" goodness and merciful disposition . . . His chief attributes are therefore mercy, goodness and peace.

3. "An altar is raised in heaven, upon which Michael, the great prince, offers 'the souls of the pious' that ascend high to the heavens, similarly as Vohumana, according to Persian tradition, in the Garonemana encounters the ascending souls and makes them sit down on their thrones of peace."

These three seem to be the only points of identification, on which Dr. Kohut bases his theory of identifying Vohumana with Michael.

¹ "The Jewish Angelology and Demonology, based upon Parsiism," by Dr. Kohut translated by K. R. Cama, p. 29.

² *Ibid.*, p. 37.

³ *Ibid.*, pp. 1-7.

The only strongest and most important point in this identification seems to me to be the first, *vis.*, that as Vohumana was an Archangel and the first of the Archangels among the Persians, so was Michael an Archangel, and the first of the Archangels or "the highest prince" among the Jews. The other two points of identification, *vis.* : (a) that Michael showed mercy and brought about peace like Vohumana, and (b) that Michael "encounters the ascending souls" like 'Vohumana,' apply as well or rather more forcibly, as will be seen later on, in the case of the identification of Michael with Mithra. But the subject of my paper is not the identification of the Michael of the Jews with the Mithra of the Persians, but the identification of the St. Michael of the Christians with the Mithra of the ancient Persians. Though it is true that Christian Books are indebted to the Jewish scriptures for the original ideas about St. Michael, still some of the views about St. Michael in all the phases of his representation—both in the later Christian Books and in the Christian Sacred and Legendary Art,—had to look to some other sources. So I beg to show in this paper that St. Michael in all the phases of his character, as presented by the Books and by the Sacred and Legendary Art, can be identified with the Mithra of the Parsee Books.

A perusal of Mrs. Jameson's Sacred and Legendary Art has suggested to me this identification. Before going into the details of this identification, I will give here a picture of St. Michael's attributes and works.

According to the Bible, St. Michael was a prince and one of the Chief princes and he helped Daniel against the Prince of Persia (Daniel x. 13, 21). The general Epistle of Jude speaks of him as an Archangel (Jude 9). He is the deliverer of the Israel from their troubles (Daniel XII. 1). In the New Testament, he is represented as fighting against the dragon in heaven (Revelation XII. 7). That dragon is the "Old serpent called the Devil and Satan" (*Ibid.* XII. 9).

Mrs. Jameson in her "Sacred and Legendary Art" thus sums up the attributes of Michael as represented both in the Scriptures and in the Sacred Art.

"It is difficult to clothe in adequate language the divine attributes with which painting and poetry have invested this

illustrious Archangel. Jews and Christians are agreed in giving him the pre-eminence over all created spirits. All the might, the majesty, the radiance, of Thrones, Dominations, Principalities, Powers, are centred in him. In him God put forth His strength when he exalted him chief over the celestial host, when angels warred with angels in heaven; and in him God showed forth His glory, when he made him conquer over the power of sin and over the great dragon that deceived the world' The legends which have grown out of a few mystical texts of Scriptures, amplified by the fanciful disquisitions of the theological writers, place St. Michael before us in three great characters:—(1) As captain of the heavenly host, and conqueror of the powers of hell. (2) As lord of souls, conductor and guardian of the spirits of the dead. (3) As patron saint and prince of the Church Militant.

"When Lucifer, possessed by the spirit of pride and ingratitude, refused to fall down and worship the Son of man, Michael was deputed to punish his insolence, and to cast him out from heaven. To him it was given

to bid sound th' Archangel trumpet

and exalt the banner of the Cross in the day of judgment; and to him likewise was assigned the reception of the immortal spirits when released by death. It was his task to weigh them in a balance: those whose good works exceeded their demerits, he presented before the throne of God; but those who were found wanting, he gave up to be tortured in purgatory, until their souls from being 'as crimson, should become as white as snow' Lastly when it pleased the Almighty to select from among the nations of the earth one people to become peculiarly his own, He appointed St. Michael to be president and leader over that chosen people."²

I will now give a short outline of the attributes of the Zoroastrian Mithra in the words of Dr. Geiger.³

¹ "Thou art weighed in the balances and art found wanting." Daniel v. 27.

² Mrs. Jameson's Sacred and Legendary Art (4th edition, 1863), Vol. I, pp. 94-96.

³ Civilization of the Ancient Iranians, by Dr. Geiger. Translated by Dastur Darab Peshotan Sanjana, Vol. I. Introduction, pp. LV-LVIII.

"Mithra has his physical and his moral side. The latter is founded on the former and proceeds from it. The two should be distinctly distinguished. Physically, Mithra is the *Yazata* of the rising sun, or more accurately, probably the *Yazata* of the light radiating from the sun. . . . On the *Hara barsati*, the mountain over which the sun rises, Ahura Mazada has created for Mithra a dwelling. . . . As the *Yazata* of sun and light, Mithra is called 'the lord over wide fields.' He is also named 'the prince of the countries.' For the sun is the king of the heavens, and he looks at the same time over all the dominions of the earth.

"The light is the symbol of truth. Hence the sun is called the eye of Ahura, because with it he surveys the whole world and perceives everything right and wrong. When once such ideas exist, it cannot surprise us that also Mithra, the *Yazata* of the sun-light, should himself become a guardian of truth and justice. If we look more closely into the entire character of the Avesta religion, we shall find it intelligible that this ethical part of the nature of Mithra occupies a far wider space than his physical importance. Mithra is the guardian of truth, the *Yazata* of oaths and promises. As such, Mithra is 'the infallible' and 'the undeceived one' . . . a warlike courageous youth who drives in a chariot through the spaces of the heavens . . . In this chariot Mithra drives into the battle in order to support his adherents and to annihilate the 'betrayers of Mithra'. . . .

"With his club he slays his opponents, the men and horses together. He is, therefore, invoked by warriors, both of strength for their teams and health for their bodies."

We will now proceed to point out in details the points of similarity between Mithra, the *Yazata* of the Zoroastrians and Michael the Saint of the Christians.

Firstly, the very meaning of the name Michael is "one who is like unto God." "In him God sent forth His strength when he exalted him chief over the celestial host." So we read of Mithra in the Meher Yasht that God created him "worthy

to be praised like him, worthy to be remembered like him."¹

Secondly, St. Michael is spoken of in the Bible² as prince. So is Mithra spoken of in the Avesta as "the king³ of all countries."

Thirdly.—According to the Jewish Scriptures "Michael speaks before God 'I am thy priest' (Jalk. ch. s. 171.)"⁴ According to the Meher Yasht Ahura Mazda appointed Mithra his priest.⁵

Fourthly.—One of the chief attributes of Michael is peace.⁶ So does Mithra bring about peace and friendship. There are different grades of friendship between different parties standing in different relations with one another.⁷ The very word Mithra is the same as Sanscrit मित्र friend. It comes from the root मृ॑ मित्र "to love, to be kind, to be friendly." So Mithra acts as a mediator a peace-maker. His attributes as a mediator or as a peace-maker have given him his peculiar position in the Parsee calendar. The Parsee months and days bear the same names which are borne by some of the angels. So Mithra, being the angel, who acts, as it were, as a middle-man or mediator, and presides over the attributes of friendship or peace, gives its name to the 16th day, which falls in the middle of the month, and to the 7th month which falls in the middle of the year.

Fifthly.—One of the attributes of Michael is kindness or mercy.⁸ So is kindness also Mithra's attribute. He is a strict disciplinarian. He punishes those who commit 'Mithra-druji,'

¹ *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1.

Yasht x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1.

² "One of the chief princes." *Daniel* x. 13. "The great prince." *Daniel* xii : 1.

³

Yasht x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1. *Yasht* x. 1.

Meher Nyaish, 12.

⁴ Dr. Kohut's Jewish Angelology and Demonology.

⁵ *Yasht* x. 89.

⁶ Kohut, Part II, p. 4.

⁷ *Meher Yasht*, x. 116.

⁸ Kohut, Part II, p. 4.

i.e., those who break their faith or promise and who speak untruth ; but to those who do not do so, and, on the contrary are truthful and true to their faith and promise, he is very kind and helpful.¹ The very word مهر *meher* used in modern Persian for kindness and from which come the words مهر بانی (kind) and مهر بانی (kindness) is the later form of Mithra.

Sixthly.—In his first characteristic “as captain of the heavenly host and conqueror of the powers of hell,” St. Michael is represented in the Bible as fighting in heaven with Satan and his evil powers. We read²: “And there was war in heaven. Michael and his angels fought against the dragon ; and the dragon fought and his angels. And prevailed not ; neither was their place found any more in heaven. And the great dragon was cast out, that old serpent, called the Devil and Satan, which deceiveth the whole world : he was cast into the earth, and his angels were cast out with him.”

So in the Avesta, Mithra is represented as slaying the demons.³ By him “are frightened all the invisible demons (of the heaven) and the visible demons of the country of Ghilân (on this earth).⁴ He always holds ‘a well aimed club on the heads of the demons’.”⁵

Seventhly.—In this second character “as lord of souls, conductor and guardian of the spirits of the dead,” St. Michael is represented, especially in the Sacred and Legendary Art of the Christians, as weighing the works of man in a balance. “Those whose good works exceeded their demerits, he presented before the throne of God ; but those, who were found wanting, he gave up to be tortured in purgatory, until their souls from being ‘as crimson should become as white as snow.’” (Mrs. Jameson’s Sacred and Legendary Art, I., p. 96).

Now compare with this the Zoroastrian picture of Mithra.

(a) Mithra judges the actions of men by weighing them and decides whether they are to go to heaven or hell. He is assisted

¹ Meher Yasht, 137.

² Revelation XII. 6-9.

³ Just as Satan is spoken of as the dragon in the Bible, so is Ahriman spoken of as a mairya (mâr) or serpent in the Avesta. Vendidad XXII. 2, 9.

⁴ Meher Yasht, 69.

⁵ Khorshed Nyaish, 15.

by other angels in this task. So it is not he personally who holds the balance. It is Rashna, who standing by his side, holds the balance. "Every one whose good works are three Srôshô-Charanâm¹ more than his sins, goes to heaven; they whose sin is more, go to hell; they in whom both are equal remain among these Hamastagân till the future body."²

(b) In the sacred pictures of St. Michael with the balance in his hand, we see a demon "grasping at the descending scale."³ "He (Michael) holds the balance; the scale with the good rests on earth, but that with the souls which are found wanting, mounts into air. A demon stands ready to receive them, and towards this scale St. Michael points with the end of a black staff which he holds in his right hand."⁴ Similarly we find demons standing before the Zoroastrian Mithra when he judges the actions of men in the balance. We read in the Mino Kherad, "And many opponents have watched there, with the desire of evil of Aeshm, the impetuous assailant, and of Astô-Vidâd, who devours creatures of every kind and knows no satiety."⁵

(c) In the case of Christian Michael, he is clothed in golden armour⁶: In the case of the Zoroastrian Mithra, it is the balance that is golden.⁷

Eighthly.—In some representations of the last judgment, St. Michael is accompanied by several angels. Four hover over his head and three are below him.⁸ In Zoroastrian books, Mithra is represented as accompanied by other angels, especially Rashna, the good angel of justice, and Srosh, the angel of obedience.⁹

Let us note in passing that there is a good deal common among the ancient Egyptians and the ancient Persians in the matter of the belief about the future of the soul. So, we find

¹ The name of a small weight.

² Ardai Viraf Nâmeh. Haug, p. 157, Ch. vi. 9-11.

³ Mrs. Jameson's Sacred and Legendary Art., Vol. 1., p. 112, Fig. 40.

⁴ *Ibid.* pp. 113-114.

⁵ S. B. E. XXIV, West Ch. II, 116-17.

⁶ Mrs. Jameson's Sacred and Legendary Art, Vol. 1., p. 113.

⁷ Viraf-Nameh, Ch. v, 5.

⁸ Mrs. Jameson's Sacred and Legendary Art, Vol. 1., p. 113.

⁹ Meher Yasht, 41. Viraf-Nameh Ch. v.

among the ancient Egyptians also several angels judging and weighing the actions of men after death.¹

Ninthly.—In his third character, "As patron Saint and prince of the Church Militant," St. Michael is represented as being appointed by God, the president and leader of the chosen people, the Hebrews. "At that time shall Michael stand up, the great prince which standeth for the children of thy people" (Daniel XII. 1). "When the power of the Synagogue was supposed to cease, and to be replaced by the power of the Church, so that the Christians became the people of God, then Michael, who had been the great prince of the Hebrew people, became the prince and leader of the Church Militant in Christendom, and the guardian of redeemed souls, against his old adversary of the Prince of Hell. (Revelation XII. 6-7)." (Mrs. Jameson I, p. 96).

Now just as Michael as an Archangel is the guardian of the Hebrews, and as a Saint is the guardian of the Christians, so is Mithra the protector of the Iranians. He is invoked for granting them all pleasure and happiness (Meher Nyaish 13) He is the protector, not only of the Iranians, but of the whole world. We read in the Meher Yasht that God appointed him the protector of the whole world.²

It must be noted, that Michael is represented in the old Testament, as helping Daniel against the prince of that very kingdom of Persia, where Mithra was held in esteem for helping the Persians in war against their enemies. (Daniel x. 13).

Tenthly.—Michael is represented as a warrior. "In all representations of St. Michael, the leading idea, well or ill expressed, is the same.³ He is young and beautiful, but 'severe in youthful beauty,' as one who carries on a perpetual contest with the powers of evil. In the earlier works of art he is robed in white, with ample many-coloured wings, and bears merely the sceptre or the lance surmounted by a cross, as one who conquered by spiritual might alone. But in the later representations, those coloured by the spirit of chivalry, he is

¹ Vide my paper before the Bombay Branch Royal Asiatic Society on "The belief about the Future of the Soul among the ancient Egyptians and Iranians." (Journal Vol. XIX, No. 53).

² Meher Yasht, 103.

the angelic Paladin, armed in a dazzling coat of mail, with sword, and spear, and shield."¹

Mithra is also represented as a warrior (rathaēshtâr) with a silver helmet, golden armour, and a dagger.² Bows and arrows, lances, hurling wheels, swords, sticks, and clubs are his weapons of war.³ Like Michael he is represented to be as beautiful and as resplendent as the sun.⁴

Eleventhly.—As a warrior St. Michael is specially represented as fighting with the dragon or Satan. "He stands armed, setting his foot on Lucifer, either in the half-human or the dragon form, and is about to transfix him with his lance, or to chain him down in the infernal abyss. . . . It is the visible palpable reflection of that great truth stamped into our very souls, and shadowed forth in every form of ancient belief—the final triumph of the spiritual over the animal and earthly part of our nature . . . we have always the leading *motif* distinct and true, the winged virtue is always victorious above and the bestial vice is always prostrate below."⁵

Now we have the same idea in the Avesta, in the fight of Mithra and other angels against Angra-Mainyu and his accomplices—the idea that in the end Spenta-Mainyu will be successful and Angra-Mainyu defeated, that virtue will win and vice will be crushed. In that very story, which explains the foundation of the Jashan-i-Meherangan, *i.e.*, the Feast of Mithra, it is the young warrior Faridun, who typifies all the virtuous attributes of Mithra, that defeats and subdues Azi-dahâka or the serpent Dahâka. It is virtue triumphing over vice.

It is said that "St. Michael owes his widespread popularity in the middle ages to three famous visions."⁶ I will describe here, in the words of Mrs. Jameson,⁷ one of these three visions, because it presents several points of similarity between the

¹ Mrs. Jameson's Sacred and Legendary Art, Vol. I., p. 100, fig. 37, p. 106.

² Meher Yasht, 112.

³ *Ibid.*, 129-132.

⁴ *Ibid.*, 143.

⁵ Mrs. Jameson's Sacred and Legendary Art, Vol. I., pp. 100-1001.

⁶ *Ibid.*, p. 97.

⁷ *Ibid.*, pp. 97-98.

Christian ideas about St. Michael and the Zoroastrian ideas about Mithra.

"In the fifth century, in the city of Siponte, in ~~Apulia~~ (now Manfredonia,) dwelt a man named Galgano or Garganus, very rich in cattle, sheep and beasts; and as they pastured on the sides of the mountain, it happened that a bull strayed and came not home: then the rich man took a multitude of servants and sought the bull, and found him at the entrance of a cave on the very summit of the mountain, and, being wroth with the bull, the master ordered him to be slain; but when the arrow was sent from the bow it returned to the bosom of him who sent it, and he fell dead on the ground: then the master and his servants were troubled, and they sent to inquire of the bishop what should be done. The bishop having fasted and prayed three days, beheld in a vision the glorious Archangel Michael, who descended on the mountain, and told him that the servant had been slain because he had violated a spot peculiarly sacred to him, and he commanded that a church should be erected and sanctified there to his honour. And when they entered the cavern they found there three altars already erected, one of them covered with a rich embroidered altar-cloth of crimson and gold, and a stream of limpid water springing from the rock, which healed all diseases. So the church was built."

Now in this story of this vision, there are several ideas which are common both to St. Michael and to Mithra.

1. From the story of this vision and other two visions, we find that the summit of a mountain is the favourite place of St. Michael. We find the same in the case of Mithra. The Meher Yasht (50) says that "God created the mansion of Mithra on the mountain Hara-berezaiti," i.e., Elbourz.

2. We see in the story of the vision that St. Michael was the protector of the bull that had lost his way and strayed. Mithra is similarly the protector of the cattle, that have lost their way and strayed. In the Meher Yasht (86) the cow that has lost her way and is looking for her stable, invokes the help of Mithra, in the following words:—

"When will the brave Mithra, the lord of broad pastures put us into our right track and make us reach our folds?"

Again it is said that the cattle of those people, who offend Mithra by committing Mithra-druji, *i.e.*, by saying untruths, breaking their promises and making a breach of trust, generally go astray.¹

We said above, that in the artistic representations of St. Michael, what is intended to be shown as an emblem, is the final victory of good over evil. In the Meher Yasht, in the picture of Mithra protecting the cattle that have gone astray, the same idea is allegorically conceived. This appears from the very next passage where the reader prays : " When will he (Mithra, the angel of Truth) take us back to the path of Righteousness from the mistaken path of the demon." ² It is worth noting here that in the Vedas also Mitra, who corresponds to a certain extent, to Mithra, is the protector of the cattle. So also among the Romans, who had taken their Mithraic worship from the East, Mithra was the protector of cows (*abactorem boum*).

3. The third point which strikes us in the abovementioned vision of St. Michael is that the arrow aimed against the bull was rejected, and killed the very man who aimed it, because Michael was displeased with his conduct.

We find the same thing in the case of Mithra. When he is displeased against those, who commit Mithra-druji, *i.e.*, who break their promises and make breaches of trust, he makes their instruments, miss their aim. He rejects their arrows. We read in the Meher Yasht (20) " That arrows, which the man, who lies unto Mithra, throws, turn back." ³

4. The altar of St. Michael is represented in the story of the vision to be in a cave of the mountain. We know that the Mithraic rites among the Romans, borrowed from the Persians were performed secretly in the hidden chambers of the cave.

We find one or two points of striking resemblance in the second vision of St. Michael which spread his popularity in the West. Mrs. Jameson thus describes the vision⁴ :—

" When Rome was nearly depopulated by a pestilence in the sixth century, St. Gregory, afterwards Pope, advised that

¹ Meher Yasht, 38.

² Meher Yasht, 86.

³ Meher Yasht, 20.

⁴ Mrs. Jameson's Sacred and Legendary Art, Vol. I., p. 98.

a procession should be made through the streets of the city, singing the service since called the Great Litanies, He placed himself at the head of the faithful, and during three days they perambulated the city ; and on the third day, when they had arrived opposite to the mole of Hadrian, Gregory beheld the Archangel Michael alight on the summit of that monument, and sheath his sword bedropped with blood. Then Gregory knew that the plague was stayed, and a church was there dedicated to the honour of the Archangel : and the tomb of Hadrian has since been called the castle of Sant' Angelo¹ to this day."

We find from the above story that St. Michael had a hand in arresting the course of a pestilence. He alighted in the place and the pestilence stopped. We learn from the Meher Yasht, that Mithra had similarly the power of preventing plague. There where the mansion of Mithra is situated we find no plague.²

There was another legend about St. Michael : "In the Gulf of Avranches, in Normandy, stands a lofty isolated rock, inaccessible from the land at high water, and for ages past celebrated as one of the strongest fortresses and state prisons in France. In the reign of Childebert II., St. Aubert, Bishop of Avranches, had a vision, in which the Archangel Michael commanded him to repair to this rock, then the terror of mariners, and erect a church to his honour on the highest point, where a bull would be found concealed, and it was to cover as much space as the bull had trampled with his hoofs : he also discovered to the Bishop a well-spring of pure water which had before been unknown. As the bishop treated this command as a dream, the Archangel appeared to him a second and a third time ; and at length, to impress it on his waking memory, he touched his head with his thumb, and made a mark or hole in his skull, which he carried to the grave. This time the Bishop obeyed, and a small church was built on the spot indicated ; afterwards replaced by the magnificent Abbey Church, which was begun by Richard Duke of Normandy, in 966, and finished by William the Conqueror."³

¹ I had the pleasure of seeing this Castle of St. Angelo on the 2nd of August 1889. I was then told this story of the vision of St. Michael and was told the pestilence was that of cholera.

² Meher Yasht, 50.

³ Mrs. Jameson's Sacred and Legendary Art, Vol. I., p. 99.

In this legend, as in the first, we find that the bull plays a prominent part. This fact can be easily explained, if one were to trace the origin of the worship of St. Michael to ancient Persia through the intermediary of Mithraic rites, that had spread in Rome and other western regions. In the bas-reliefs, sculptures, monuments, &c., which have been discovered in some of the caverns at Rome, and which refer to the ancient rites used at the celebration of Mithraic mysteries, figures of bulls with Mithra have been found and have been variously explained.¹

It is worth noting here that the word "Mitre" by which the head-dress which the Christian Bishops put on, in their religious services, is known, is derived by Maurice from Mithra. He says, "possibly the name of *Mitre* may be primarily derived from this high conical cap worn in the rites of Mithra, which was also covered with rays and painted with various devices."²

We find that in all the above three legends of St. Michael, the number three plays a prominent part. In the first legend, the Bishop fasted and prayed for three days, before he beheld St Michael in a vision. In the second, St. Gregory perambulated in the city of Rome for three days before he saw the Archangel descend on the summit of the hill. In the third legend the Archangel appeared to Bishop St. Aubert three times before he could make the Bishop properly understand his message.

The number three plays a prominent part in the ritual of the Zoroastrians. The fire-temple, where the sacred religious rites are performed, is called the Dar-i-Meher, *i.e.*, the door or the gateway of Meher or Mithra. The ceremonies for the consecration of these temples or the Gateways of Mithra are performed for three days. Again the departed souls have to remain in this world for three days before being judged by Mithra.

We have so far seen, that there are many points of similarity between St. Michael of the Christians and Mithra of the Zoroastrians. As said in the beginning, it is not very difficult to account for this similarity. The Iranian Angelology had some influence over the Jewish and Christian Angelology. It was more so in the case of Mithra. There was direct as well as indirect influence; direct from the Persians themselves and

¹ Vide K. R. Cama's "A Discourse on the Mithraic Worship."

² Indian Antiquities or Dissertations, Vol. v., pp. 994.

indirect from the Mithraic rites and worship that had at one time spread in Rome and in other adjoining countries.

Mrs. Jameson says on this point¹:—

“ To the origin of the worship paid to the great Archangel I dare not do more than allude, lest I stray wide from my subject, and lose myself and my readers too, in labyrinths of Orientalism. But in considering the artistic representations, it is interesting to call to mind that the glorification of St. Michael may be traced back to that primitive Eastern dogma, the perpetual antagonism between the Spirit of Good and the Spirit of Evil, mixed up with the Chaldaic belief in angels and their influence over the destinies of man. It was subsequent to the Captivity that the active Spirit of Good, under the name of Michael, came to be regarded as the special protector of the Hebrew nation : the veneration paid to him by the Jews was adopted, or rather retained by the Oriental Christians and though suppressed for a time was revived and spread over the West where we find it popular and almost universal from the eighth century.”

The Good Spirit referred to above is the Spentâ-Mainyu of the Avesta as opposed to the Evil-Spirit, the Angrâ-Mainyu of the Avesta. He had as it were a celestial council of Seven on his side. These seven were the Ameshâ-Spentas corresponding to the seven Archangels of the Hebrews and Christians, the seven Immortal Powers of the Neo-Platonists and the seven Great Angels of the Gnostics. Besides the Ameshâ-Spentas he had several other Yazatas or angels on his side. Mithra was one of the foremost of these.

Now Michael as originally conceived by the Hebrews and the early Christians may be one of the Seven Archangels, but as represented in the later Christian writings and in the Sacred Art, he seems to have been conceived rather in the picture of Mithra as presented directly by the Zoroastrian books and indirectly by the Mithraic rites and worship of the Romans and of the other adjoining nations.

SHUMS-UL-ULMA JIVANJI JAMSHEDJI MODI, B.A.

¹ Mrs. Jameson's Sacred and Legendary Art, Vol. I., pp. 94-95.

SUMMARY OF ANNUAL REPORTS.

ANNUAL PROGRESS REPORT OF THE ARCHÆOLOGICAL SURVEY CIRCLE, UNITED PROVINCES, FOR THE YEAR ENDING 31ST MARCH 1903. Government Press, United Provinces. •

DURING the year under review Munshi Ghulam Rasul Beg, Head Draftsman, held charge of the current duties of the office of the Archæological Surveyor, United Provinces.

His Excellency the Viceroy, when he visited Agra in April 1902, gave detailed instructions as to certain works which have now, nearly all of them been completed.

The total expenditure on restoration and conservation in these Provinces during the last year was Rs. 1,58,541.

Under the head *Inscriptions* we find the following interesting notes (p. 2):—

Inscriptions.—The late Mr. E. W. Smith supplied Dr. E. Hultzsch, Government Epigraphist, Madras, with some impressions of copper plates, which are deposited in the Provincial Museum at Lucknow. Three out of these have been published in the *Epigraphia Indica*, volume VII, parts III and V. These are—

• (a) *Two Lar plates of Govinda Chandra of Kanauj, dated (Vikrama) Samvat 1202.*—These copper plates were found at the village of Lar in the Gorakhpur district, United Provinces. They were handed over to Dr. W. Hoey by Babu Ram Saran Singh and Babu Mahadeo Singh, and presented by him to the Provincial Museum, Lucknow, in September 1898. The inscription is one of the Parambhattaraka Maharajadhiraja Parmesvara Govinda Chandradeva. The King records in it that when in residence at Mudgagiri (Monghyr), after bathing in the Ganges on the occasion of the *Akshaya-Tritiya* festival, on Monday, the third *tithi* of the bright half of the month *Vaisakha* in the year 1202, he granted the village Pôtachavada to the Thakur Sridhara. *

(b) *Madhuban plate of Harsha; the year 25.*—This plate was discovered in January 1888, in a field near the village of Madhuban in Pargana Nathupur of the tahsil Sagri, in the Azamgarh district of the Benares Division of United Provinces, and is now in the Provincial Museum at Lucknow. The inscription is a character of the well-known

* Abstracted from Dr. F. Kielhorn's paper in the *Epigraphia Indica*, volume VII, part III.

King Harsha or Harshavardhana, the hero of Bana's *Harsha-charita*, who ruled part of Northern India at the commencement of the 7th century A.D., by which the village of Sômakundaka, which had been previously held by a Brahman on the strength of a forged charter, was granted to two other Brahmans. *

The work during the year comprised operations at Akbar's Tomb at Sikandra—the Fort, Agra,—the Taj—Itimâd-ud-daulah's tomb and buildings at Fâthpur-Sikri.

At Sikandra the plinth and spandrels on the east and west sides of the southern gate were restored—also the east gate of the Mausoleum, and the conservation of the north false gate at Sikandra.

At the Fort the upper front wall of the Jahângir Mahal facing the river was restored—the archæological building known as the Salimgarh—and the kiosk on the south-east angle of the Jahângir Mahal.

The cloisters in the Dewân-i-Am quadrangle were also taken in hand. These cloisters have for many years been used for military purposes and were entirely hidden by modern additions, in which gun carriages, etc., were housed—and repairs done to the inlay work of panels and niches in the walls of the Moti Masjid. The handsome old carved, so-called Somnath Gates, which had been roughly patched from time to time with mango wood, were repaired in 1901 with deodar, the wood of which they are made, but the effect of the patches of new wood against the original, to which time has imparted a dark reddish brown colour, is very glaring.

Over Rs. 20,000 has been spent on the Taj alone—and the restorations comprise special repairs to the Mosque attached to the Taj—restoration of the east and west central causeway—red sandstone flagging to the platform of the Saheliburj.

The tomb of Itimâd-ud-daulah has had the missing marble balustrade supplied at a cost of Rs. 14,500—also the inlay work. The repairs here consisted in replacing some 10,000 pieces of marble and other stones of numerous kinds and sizes which had disappeared or become badly shattered.

* Abstracted from Dr. F. Kielhorn's paper in the *Epigraphia Indica*, volume VII, part V. This inscription has been already edited by the late Professor Bühler in *Epigraphia Indica* volume I, page 67 ff.

In the Lucknow District some Rs. 23,000 has been expended on the restoration and renovation of the Jama Masjid—special repairs to the Nawabi bridge—and the construction of a marble stone hall and floor in front of Saiyed Sâlâr Masûd's shrine, Bahraich District.

In the Allahâbad District iron gates have been provided for the enclosure round Asoka's pillar and the tombs in Khushru Bâgh thoroughly restored.

In the Banda District the approaches to Kalinjar Fort have been put in order and "several pieces of the stone statue of Vishnu lying on the Nag have been put together." Minor repairs and restorations have taken place in Ghazipur, Jaunpur, Benares and Manipur Districts—in the latter a sum of Rs. 1,485 was spent on the conservation of the Chunar Hill Fort.

During the year under review the Government of India had under consideration the desirability of commemorating with suitable tablets the houses or dwellings in which distinguished public men have resided at different portions of their career ; and, on the recommendation of the Local Government, approval was conveyed to the erection of the following tablets with inscriptions engraved thereon :—

Inscriptions.

- | | | |
|--------------|-----|---|
| I.—Chunar | ... | This house was occupied in 1781 by Warren Hastings, first Governor-General of Fort William in Bengal. |
| II.—Benares | ... | In the garden (Madho Das) within this wall were the quarters occupied by Warren Hastings, first Governor-General of Fort William in Bengal, in the autumn of 1781. |
| III.—Banda | ... | In a house on this site lived Tulsi Das, the author of the Ramayan, about the beginning of the 17th century. |
| IV.—Azamgarh | ... | (Mr. Thomason's House.) The house was occupied from 1832-37 by James Thomason, the first Magistrate and Collector of Azamgarh, and afterwards Lieutenant-Governor of the North-Western Provinces. |

All the restorations and censervations spoken of in this annual Report are beautifully illustrated in a series of photographs and drawings, issued as a supplementary volume.

ANNUAL PROGRESS REPORT OF FOREST ADMINISTRATION IN THE CENTRAL, OUDH, AND SCHOOL CIRCLES OF THE UNITED PROVINCES for the Forest year 1902-1903. Allahabad: Government Press.

THIS volume practically consists of three Reports—that of (1) the Central Circle, (2) Oudh Circle, (3) School Circle.

The following statement shows the changes in the forest area of the Central Circle during the year :—

The area of reserved, protected, unclaimed, and leased forests in the United Provinces was increased during the year by the reservation of the abandoned Khurpa Tal Cantonment and of a few acres in Gharwal. On the other hand, there was a loss of one square mile in the School Circle owing to the exclusion of cultivation and of temple sites. No settlement work of any importance was undertaken during the year, but in the Jaunsar Division some 400 acres were disforested as being better suited for cultivation.

Omitting the Dehra Dun Division and the district forests, there are now only 3,379 square miles of forests in the Provinces, for which no working plans have been prepared; of this area 303 square miles are in Bundelkhand, for which a rough working scheme has been adopted.

On new roads nearly Rs. 20,000 was spent and Rs. 32,000 on repairs; more money will, however, have to be found if the forests are to be properly exploited, as communications are not in a satisfactory condition.

Rs. 39,070 were spent on new buildings and much was done to provide proper quarters for the subordinate staff. Here also more liberal expenditure is required, as life in the forests is hard, and the climate is often unhealthy. Without proper accommodation it is quite impossible for the staff to keep in health and to work properly.

Breaches of Forest rules were fewer than last year, and the punishments inflicted do not appear to have been excessive.

With regard to fire conservancy the measure of success attained was not so great as last year. The results in the Central Circle were good except in the Bundelkhand Division, which was responsible for three-quarters of the total area (10,660 acres) burned. The damage is attributed mainly to the

carelessness of the ranger in the Lalitpur Range, who has been reduced. The Oudh Circle was most unfortunate, 58,896 acres being burned as compared with 15,156 last year. The damage was practically confined to the Pilibhit and Kheri Divisions. In the latter division the results would have been good but for one most disastrous fire, which overran nearly 21,000 acres. The originator of this fire was convicted and sentenced to six months' imprisonment. In Pilibhit there were no less than 23 fires, of which ten were intentional and seven were due to carelessness. Out of eight prosecutions only four were successful. The people in this division are particularly hostile to forest protection, and in order to stop incendiarism Government has been compelled to suspend the rights enjoyed by the inhabitants in 17 of the villages most concerned. The School Circle showed better results, and the area successfully protected amounted to over 98 per cent. of the area attempted. No cases were ascribed to malice, though one in the Dehra Dun Division was suspicious. For the whole Provinces the area over which protection failed rose from 27,877 to 76,874 acres, and the cost from Rs. 63,751 to Rs. 64,125.

The areas under grazing were practically unchanged. Excessive illicit grazing is suspected in the School Circle, where the situation of portions of the forest area renders efficient supervision and correct enumeration difficult. Wandering Gujar graziers continue to give trouble, and in some forests special steps have to be taken against them.

The total outturn of timber, fuel and minor produce was largely in excess of that of the two preceding years. The increase was mainly in the School and Oudh Circles and the credit of the increase in the former is chiefly due to Mr. Tulloch, the Divisional Officer of Jaunsar. In the latter circle there was a striking fall in the outturn of timber from the Pilibhit Division. The forests of this division are most inaccessible, but with the transfer of the head-quarters from Bareilly to Pilibhit the management should become more easy.

The financial results of the year are most satisfactory. The total receipts have risen from Rs. 17,61,090 to Rs. 21,66,528, and the surplus from Rs. 7,68,012 to Rs. 11,43,367, the largest on

record. All three circles have contributed to this result, but the largest increase was in the School Circle, where the successful management of the Jaunsar Division by Mr. Tulloch raised the revenue from Rs. 4,90,497 to Rs. 7,02,933. The deaths during the year are those of Mr. Dickinson, who had brought the work of the Central Circle up to a high level, and Mr. French, who succumbed to enteric a few months after he had taken over charge.

Among Deputy Conservators, Government especially thanks Mr. Tulloch for his efficient administration of the Jaunsar Division, Mr. Leete for his work in connection with the trans-Sarda working plan, and Mr. Billson, who held charge of the Oudh Circle after the death of Mr. French.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1902. VOL. I. Washington, Government Printing Office.

AN exhaustive report—1,176 pages—issued by the Bureau of Education. Education in Canada, in British South Africa, in France, in Italy, and in Great Britain and Ireland, is discussed. Special articles are written on "Child Study," "Universities," and Correspondence Schools. We have only mentioned some of the features of the report which we think will be of interest to educationalists in India, and with this object we strongly advise them to read the pages devoted to "Francis Wayland Parker and his work for Education." With reference to Composition he says :—

The idea of experimentation and the deduction of principles from it is the chief idea in his philosophy of education. He would have "natural and mechanic history" taught, because deductions might be made which would improve agriculture and mechanics. He would have composition taught in his ideal school because "writing one's own language well is the next necessary accomplishment after good speaking. It is the writing master's business to take care that the boys make fair characters, and place them straight and even in the line; but to form their style and even to take care that the stops and capitals are properly disposed is the part of the English master. The boys should be put on writing letters to each other on any common occurrences and on various subjects, imaginary business, etc., containing little stories, accounts of their late reading, what parts of authors please them, and why: letters of congratulation, of compliment, of request, of thanks, of recommendation, of admonition, of consolation,

of expostulation, excuse, etc. In these they should be taught to express themselves clearly, concisely, and naturally, without affected words or highflown phrases. All their letters to pass through the master's hand, who is to point out the faults, advise the corrections, and commend what he finds right. Some of the best letters published in our own language, as Sir William Temple's, those of Pope and his friends, and some others, might be set before the youth as models, their beauties pointed out and explained by the master, the letters themselves transcribed by the scholar."

Such notes as these are valuable alike to the teacher and student, and very apt as far as Indian students are concerned. And again, Indian students might take to heart that—

Mere learning is not and cannot be education. All that acquisition of facts to which so many hours of youth are given by force of our common system of public and, indeed, of private education contributes little to the education of the Platonic kind. Acquisition of facts may supplant training; it may utterly fail to teach a man "how rightly to rule and how to obey.

The chapters dealing with the negro question are full of interest. The question—"Are you hopeful for the future of the negro in this country?"—was sent to the heads of educational establishments. The answers we have selected have such a general application that we offer no apology for including them. They can be applied with equal force in this country:—

"Sometimes I am hopeful, sometimes I am not. In this part of the country negroes do not seem to embrace opportunities. Too much talent is wasted in politics and in office holding."

"When we look at the masses of our people and see on the one hand ignorance and on the other careless indifference, it is difficult to feel very hopeful for the future. We see so many of our young people who seem to have no thought of the future, no ideas beyond having a good time in the present, who seem able to have no enthusiasm over anything higher than a hall or like entertainment."

"I would suggest that we be honest with ourselves, not try to lay the blame upon some one else; stop whining and try by individual effort and accomplishment to prove our claim and right to American citizenship."

"My suggestion is that he make good use of the opportunities at hand; develop that which is best in himself. Don't strive to be other people, but make himself the equal, and if possible the superior, of other people."

Chapter X is a collection of notices on some early English writers on Education—Lupset, Palgrave, Ascham, Bacon and

Sir Thomas More. This part of the report is full of good things. In these days of Rifle Clubs it is curious to note the Mulcaster advocate's archery as the best form of exercise.

"Archery" he says—"Hath a great deal better place in our fields for welfare [than hunting] and therefore the more, because it consisteth both of the best exercises, and the best effects of the best exercises. For he that shooteth in the free and open fields may choose, whether between his marks he will run or walk, dance or leap, hallo or sing, or do somewhat else, which belongeth to the other, either vehement or gentle exercises * * * This exercise [of Archery] do I like best generally * * * upon the causes before alleged, which if I did not, that worthy man our late and learned countryman master Askam would be half angry with me, though he were of a mild disposition, who both for training the Archer to his bow, and the scholar to his book, hath showed himself a cunning Archer and a skilful master."

Bacon is quoted with good effect, but we have only space for a brief extract:—

A godly and diligent schoolmaster shall gather such flowers out of the holy Bible for his scholars, from time to time, as occasion shall serve, with the sweet and strong savor whereof they may repel and put away the pestiferous and mortal odors of the errors and heresies, not only of the papists, but also of all other sectaries.

And then, the schoolmaster's duty is "to teach good letters," not as mates but as handmaids of God's Word.

[Teach] poets, orators, historiographers, philosophers, etc., not that they should be mates with God's Word, but rather handmaids unto it, and serve to set forth the honor and glory thereof. For unto this end ought all liberal sciences to be studied and learned even that they might not depress, but advance, the true religion of God. For eloquence without godliness is as a ring in a swine's snout; yea, all arts and sciences, not coupled with the love of religion, are rather instruments of wickedness than of godliness; and, as Tully saith, "To give to a lewd man eloquence without wisdom is none other thing than to give unto him arms to destroy the commonweal."

We pass on to "Educational Tendencies," and here again there is much which has a local application. For instance, in an article in which he laments the unpreparedness of the American teaching force, he says:—

"To produce anything equivalent to the teaching staff from whose guidance I benefited in my boyhood, no one ought to be allowed to teach in a grammar school who has not passed through a college or a good normal school; no one ought to teach in a high school who has not worked after his college course at least two years in the graduate school of a good university; no one ought to teach in a college who has

not taken his doctor's degree in one of the best universities ; and no one ought to teach in a graduate school who has not shown his mastery of methods by powerful scientific publications."

And

Children are put to studying things they have never been prepared for and cannot grasp, things which are laborious and unhealthful now, but which they would get easily and naturally enough in time if there should ever be occasion for it. It makes them artificial and conceited.

Correspondence Schools and classes have received due attention, and we think some of the warnings are worth reproducing :—

Certain advertisers pretend to teach professions by correspondence in a few weeks which in the very nature of things can be learned only by years of practice and observation of practical work, in addition to the study of books.

There is still another class of persons who may or may not be honest in intention, but who undoubtedly give very little in return for the tuition fees paid them. The instruction given by some of the so-called schools of caricature, designing, and illustration is exceedingly meagre. One "complete course" consists of thirty sheets, each showing one or more pictures to be copied, specimens of lettering, examples of "tints," and a few paragraphs of instruction which are utterly inadequate to do the subject justice. The charge for the course is \$25 cash, and more if paid in instalments, and great claims are made in the advertising matter of the "school" for its efficiency. But it is difficult to understand how such a course can be of material benefit, to say nothing of its ability to develop first-class illustrators, as the statements to prospective students seem to imply.

There are several correspondence schools of music which are advertised more or less extensively, and which claim to have many students. Undoubtedly there is much in the science of music that can be taught by mail as easily as any other subject can be taught by that method, and there are teachers of high reputation engaged in such instruction ; but to teach the art, as distinguished from the science, in that way is quite another matter. It would certainly be difficult to accomplish it satisfactorily.

These instances represent the darker side of the picture, and they arise from the condition of affairs that exists in this country which makes it possible for a man to undertake any business he wishes so long as he does not actually violate the ordinary criminal laws. There is no supervision whatever on the part of any public officer over the work of correspondence schools. In most States they may with apparent ease even secure charters enabling them to grant degrees without restriction.

And we reproduce this warning because American literature of this nature is finding a great reception in this country

and bogus degrees are not unknown. Rhodes scholarships and Carnegie's gifts are discussed at length and are interesting reading. An account of Oxford University and the Rhodes scholarships, and also a History of the University, occupy considerable space and are worthy of notice. The report concludes with some excellent articles on Education in England, dealing with the Education Bill, the Clergy, and the Education Act, and the New Education Act at work.

CRITICAL NOTICES.

A PRIMER OF ENGLISH GRAMMAR with Exercises. The Christian Literature Society.

THE fact that this little book has reached the 16th edition and 460th thousand is sufficient comment on its usefulness. We can recommend the book as concise, clear, and accurate, suitable for junior classes.

MANUAL OF ENGLISH GRAMMAR. New Edition. Christian Literature Society.

THIS volume is a revision of the New Manual of Grammar, which for the last twenty-five years has enjoyed such popularity in Indian schools that annual editions of 40,000 copies have been called for. Care has been taken to avoid loading the pages with non-essential matter, and we congratulate the author in producing a book which, if mastered, gives the student a thorough and practical knowledge of the grammar of the language. We venture the opinion, however, that it is a mistake to require a pupil to correct sentences containing false grammar. If he has a sound knowledge of the language and of proper constructions such exercises are superfluous and model sentences *how* to use the words instead of *how not* to use them are preferable. The University Examiners we know favour this kind of exercise and ask candidates to correct such sentences as "He was ruined by dirt, losses, mischiefs, and others." We think it is a mistake to encourage them.

RULES ON ENGLISH PROSE COMPOSITION, by M. W. Jennings (Longmans, Green and Co.)

THE book market is already overcrowded with books of this nature and hence the only claim such a book can have on the approval of educationalists must rest entirely on its originality. The only originality the book under review can boast of is its Exercises, which number one hundred. But

these exercises are purely mechanical puzzles of so slender an ingenuity that it would be an insult to present them for solution to a kindergarten class: The promised key is a work of supererogation.

We note, with regret, the usual definitions of the parts of speech. No definition, which it is in the power of man to compass, can possibly hold good in all cases. For example we are told that a pronoun is a word used instead of, or for, (what is the difference between "instead of" and "for"?) a noun or its equivalent. "Do the following words—'I,' 'thou,' 'none,' 'nobody,' 'nought,' 'neither,' 'many,' 'few'—come under this definition? According to this book they do. Again Gender is said to be a form of a noun and so is Number. Can this be so? Gender and number are abstract ideas, whereas the form of a noun is necessarily concrete. Once again, 'Case' is defined as "that form of a noun which shows its relation to other words in the sentence." This is not only meaningless but wrong. Consider the sentence. "The strong *man* killed the weak *man*." Here there is no difference in the *form* of the noun and yet the two words *man* are in different cases.

The style is simple; but there is a bewildering over-elaboration of detail. Fifteen pages are devoted to 'the use of 'a' and 'the'; thirty-four pages deal with prepositions, and there are nine classes of interjections. Prepositions are 'simples' if of one syllable, 'compound' if of two or more. Among the latter we find 'ere,' 'near,' 'but,' 'since,' 'save,'—which is stimulating. But why not have Complex prepositions of three syllables, and Compound-complex of four? There is nothing like thoroughness. The formation of rules to cover all possible cases seems to be the main object of the author, and some words are dragged in, suffering severely in the process, to conform to some arbitrary rule, *e.g.*, 'mistress' is formed from 'master' by adding 'ess' after omitting or inflecting the final syllable, and 'vixen' is got from 'fox' by adding 'en'! What need, too, of the Conditional Mood, when the tendency to do without the Subjunctive grows more pronounced every day? If there is any point in having a Conditional Mood ('I can love') why say that 'love' in 'I

can love' is infinitive?" There are thirty-two pages of conjugation, mostly like this :—

I may, can, shalt or will love.
 Thou mayst, canst, shalt or wilt love.
 He, may, can, shall or will love.
 We may, can, shall or will love.
 You may, can, shall or will love.
 They may, can, shall or will love.

Occasionally varied by

May, can or shall I have ?
 Mayst, canst, shalt or wilt thou have ?
 May, can shall or will he have ?
 May, can or shall we have ?
 May, can shall or will you have ?
 May, can shall or will they have ?

Is all this necessary? Is the elaborate paradigm on page 110 (21' x 7') useful or needful? Is it anything but bewildering? The sentence "I will drown, nobody shall save me" will be found of far more practical utility. Does the phrase "a conditional or hypothetical subordinate adverbial clause" convey any meaning to anyone? Can it?

No! the difficulties of the English language are not to be overcome or lessened by increasing the number of rules. The author would have been far better employed in placing before his prospective readers some good specimen extracts and model essays. He may reply that there are many such books already in existence. Well! this is not the first book on English we have met.

We are not prejudiced against this book, except in so far as it fails to justify its existence. As a reference book it might prove of use.—the Appendix especially so.

SAKUNTALA by R. Vasuveda Row, B. A. Published by G. A. Natesan and Co., Madras.

THE basis of this poem is the celebrated Sanskrit drama Abhijnana-Sakuntalam by Kalidasa, the Shakespeare of India. The object of the author in writing it, as he tells us in the preface, is a laudable one, namely, to bring to light the hidden treasures of Sanskrit literature. But he has been forestalled as far as this book is concerned by men like Sir William Jones

and Monier Williams. Still a work like this has its uses. In translating a master work such as that by Kalidasa, a foreigner is doubly handicapped. His knowledge of the original language must necessarily be limited, and his acquaintance with the habit of thought must be still more so. That the translators alluded to were Sanskrit scholars of very high standing cannot be denied, but they cannot claim to have had a thorough insight into the spirit of Eastern thought. When therefore an educated Indian undertakes such a task, we naturally look for a better result in this respect. And we regret we cannot say the author has been successful. There is, again, another difficulty in his path. To him the English language is a foreign one and his style is apt to be somewhat unfinished. The defects of the present poem arise chiefly out of this. We come across expressions which no English translator would have employed. Thus we find

"Or the moon fair, in her spotty majesty"

and

"Of every day proportioned to her lot."

Again he tells of "sweet juicèd like nectar" and "iron clad sentinels" of "when the blossoms blowed" and of a "foe compelling sceptre." There are a large number of queer expressions such as these.

In some places we find the author totally disregarding facts and laws of nature. He describes "antelopes with round eyes" and "dew-drop blaring with the flame of noon." Antelopes are proverbially known to have long arched eyes (हरिनाब्धि) and one can hardly expect to see a dew-drop at noon.

We cannot refrain from adding that there are some passages in the book which might have been omitted. These occur in connection with the birth of Sakuntala and her meeting with Dusyānta at the hermitage. Kalidasa, in the original, is discreetly silent beyond a certain point, and Mr. Vasuveda would have done well to have followed his example.

Against these shortcomings there are, however, some really good things in the poem. We would draw the reader's attention to the parting scene between Sakuntala and Kanwa. In the keen observation of Nature Kalidasa has been equalled

by few and probably surpassed by none, and one will find some of his finest thoughts in the poem. It is unfortunate that at times they are so badly expressed.

RANADE AND TELANG: An Appreciation by the Hon'ble Mr. G. K. Gokhale, C.I.E. (Member of the Imperial Legislative Council) and Mr. Dinshaw Edulji. Wacha (President of the 17th Indian National Congress) with portraits. Published by G. A. Natesan and Co., Esplanade, Madras.

THIS booklet contains the full text of the anniversary address delivered by the Hon'ble Mr. Gokhale on "The late Mr. Justice Ranade" at the Hindu Club in Bombay, and also that of Mr. Dinshaw Edulji Wacha on "The late Mr. Justice Telang" delivered before the same body. We have no doubt that a perusal of the accounts herein given of the lives of these two eminent Indian worthies will be stimulating and inspiring and will enable the reader to understand how under British rule it is possible now for all good and true sons of India to combine loyal service to the State with patriotic endeavours for the advancement of their own people.

THE FAUNA OF BRITISH INDIA: Including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by W. T. Blanford. Rhynchota—Vol. II. (Heteroptera) by W. L. Distant.

THE first volume of Heteropterous Rhynchota containing the families Pentatomidæ, Coreidæ and Berytidæ was issued in June 1902. The present volume will comprise all, or nearly all, the remaining families of the division Gymnocerata. At the time of writing we have only received Part I of this volume and we have not seen a better arranged treatise. The book is a concordance, well illustrated and well written.

BUDDHA UND CHRISTUS. EINE BUDDHISTISCHE APOLOGETIK. Von Bruno Freydank. Leipzig; Buddhistischer Missionsverlag. 1903.

THE author of this work, as might be gathered from the name he has been pleased to adopt, takes his Buddhism very seriously. He has already, it appears, spent much labour on propagandist compositions designed for the benefit of Christian

Europe, that "Great Madhouse" as it appears to his serene intellect. Herr Freydank will hardly, we fear, "acquire merit" for mildness. His treatment of vivisectors, missionaries, and meat-eaters is truculent indeed.

We had always thought that the prospect of extinction in Nirvana was the bait that attracted a weary generation to Buddhism, but if Herr Freydank is to be believed, Nirvana is existence, though of an etherialised variety.

CONTRIBUTIONS À L'ÉTUDE DU BLASON EN ORIENT. Par Yacoub Artin Pacha. Cairo, 1903.

WE have had the pleasure of perusing a copy, perhaps the only one that has reached India, of a very curious and interesting work on the origin of armorial bearings in the East, of which only 300 copies have been printed in Cairo. It will be a matter of surprise to many that heraldic symbols have been in use in the Orient, and that not among Hindus, but image-hating Mussulmen. The use of symbols, however, to which man has recourse "to protect his past from the frailty of his memory," as Artin Pasha ingeniously puts it, makes such an appeal to human nature that even the stern tenets of Islam have not prevailed against it, the Arabs taking to themselves the lore of the nations they conquered, became inevitably tinged with symbolism.

Among the developments of this tendency was the use of armorial bearings, if indeed we may give this name to symbols that rarely had an hereditary application. The policy of Mohammedan rulers has generally lain in a jealous degradation of the sons of the great and the erection of the low-born to places of power, so that hereditary distinction has been seldom found except in dynasties.

A strange collection of these symbols, drawn from plants and animals, conventional ornaments, and articles of domestic use, are figured in the plates of Artin Pasha's sumptuous work. He traces for instance the use of heraldic flowers, and of the fish-symbol, to Chinese sources, but does not seem to be aware of the connection of the latter with the royal house of Oudh. We find the cup, symbol perhaps of the boon-companion of a monarch; dice, of the leader of a victorious army; targets, of mighty archers.

A special chapter is devoted to the marks known as *wesm* (وسم), which were, and indeed still are, used among the Arabs as symbols of tribes and families, and chiefly appear as brands upon camels, horses, and sheep. Should an animal pass, by bequest into the possession of a family allied to his masters, he is branded with a second *wesm*, and *painfully* furnishes an example of rudimentary quârtering.

Nothing is said about India in the present work. We believe, however, that heraldry was unknown in ancient India, and has only crept in by imitation of Europe in quite recent times.

THE REFORM OF INDIAN CURRENCY. *Die indische Währungs reform.*
 Von Dr. O. Heyn. Berlin, 1903.

THE existence of this book of nearly four hundred pages is a striking testimony to the commercial importance of India. It would be perhaps tedious to detail the arguments of the writer, but his conclusions are (1) that the fixing of the rupee did more or less harm to producers and landowners at the time of its adoption, by weakening India's capacity to compete with foreign nations; that it also injured the owners of uncoined silver, and was responsible for the gold-crises of 1896-97 and 1897-98, but that (2) it will have a favourable effect in future, as it gives the country a firm basis for its trade with the gold-using countries, facilitates the influx of capital, and saves the State additional outlay in paying Home Charges.

Dr. Heyn, however, thinks it would have been better to fix the value of the rupee at 15 pence.

He is further of opinion that in unfavourable times European investors may lose confidence in the Government, which would bring about a fall in exchange, and recommends an increase of the gold reserve to meet this contingency.

BUDDHIST INDIA. STORY OF THE NATIONS. By T. W. L. Rhys Davids, LL.D., Ph.D., London, 1903. T. Fisher Unwin, 5s.

MESSRS. FISHER UNWIN'S "Story of the Nations" series are a collection of histories of very uneven value: but the latest addition to the series is from the pen of one of the greatest living authorities on the subject of Buddhist India. Professor

Rhys Davids has here made an important attempt to get behind the Brahmin traditional view of Indian History to the point of view of the Rajput. So the present work has been not merely written to the publisher's order to fill a place in an attractive series of popular books, but is in reality a solid contribution to pioneer historical science. Readers of the Professor's book will do well to procure Colonel Waddell's Report on the excavations at Pataliputra, which shows in detail how, while a few years ago not a trace of Asoka's great capital was supposed to remain, some of the oldest sculptures and evidences of ancient Western art have been recovered by the skill of the modern explorers, and how the old city and palace boundaries have been actually defined by the vestiges of the ancient team-palisade described by Megasthenes. We trust that our present Viceroy's distinguished zeal for the historical remains of India will lead the Government to undertake a less fitful system of investigation than has hitherto been undertaken. The illustrations to the present volume have evidently been carefully chosen, not only to make the book attractive, but to assist the student to enter into the author's meaning.

TALKS ON HEALTH—A BOOK FOR INDIAN HOUSEWIVES. By Mrs. Brander.

WE have, in reading this book come across much useful information. The authoress has apparently spared no pains in endeavouring to bring her work up-to-date. The style is simple and the illustrations are good. At the same time we fail to see what useful purpose the first six chapters can serve in a work presumably intended to be of practical use to Indian housewives. We regret to notice, too, that the all-important question of the "Prevention of Malaria" is mentioned and dismissed in *two* lines. Any modern book on Indian Hygiene must be considered as incomplete when it fails to deal with such an important subject.

PRIMER OF GEOGRAPHY—GEOGRAPHY OF THE MADRAS PRESIDENCY—OUTLINES OF GEOGRAPHY. (Christian Literature Society.)

THESE three works are excellent little manuals in every way. They are designed for Indian students and they fulfil

their object. They are instructive, useful and interesting. The maps are well drawn, up-to-date, well coloured and accurate. We refer particularly to those illustrating India. These we have carefully tested, and after a diligent search can only record that, among well-known places, Mussoorie alone is missing. We consoled ourselves with Landour. The diagrams are simple and the explanations are clear. In the "Outlines of Geography" the political and physical features of each province are treated in a rational manner, and we congratulate the author in avoiding the long string of names which is the schoolboy's idea of Geography. The more important towns are mentioned and a short note is appended to each. In a few cases this is a little too vague. For instance, Mirzapur is "a place of some trade" and Hyderabad is "noted for its manufactures."

A Geography of Bengal on the same lines as the Geography of the Madras Presidency would be welcomed by junior students. We can heartily recommend the books.

LORD CURZON IN INDIAN CARICATURE. Edited by H. A. Talcherkar.
Published by Babajee Sakbaram and Co.

THIS is a collection of cartoons reproduced in miniature, illustrating the career of His Excellency Lord Curzon. They are selected from the illustrated comic journals of India and arranged in chronological order, with an explanatory text. The book is offered "as a humble souvenir of the Delhi Durbar," with which it has little or no connection. Caricatures teach us many things and we cannot help thinking that the author has only selected those wherein Lord Curzon figures as "the idol of the people and speaks, where possible, in his own words—outspoken but breathing love and sympathy—noble utterances worth treasuring up." Quite so. Such pictures are worth reproducing, but there are others.

It is a book illustrating "his Lordship's sympathetic and righteous rule."

The cartoonist's craft is practically new in India and is a trifle crude in execution at times. The explanatory text however, solves some apparent mysteries. We have only one suggestion to make, and that is, that it would help the reader if the

cartoon referred to, immediately followed the description. As it stands at present it is a little difficult to connect the two.

"The New Mahut," "Crushing Kalia," "The Slaying of Mahisasur" and "Pacifying the Troubled Waters" are the best. His Excellency is shown as a mali, a gowli, a bangle-seller, a Kali, and as an angel!

The *Hindu Punch* represents the Viceroy as "A Colossus of Words." This might be reproduced and presented to the Senate, as a companion picture to "The Physician."

The explanatory text, as we have said, is interesting and at times a little quaint. We are told, for instance, that "in the Viceroy's brief exposition of the eleventh reform one hears a faint echo of that voice which later on so sweetly and touchingly appealed to the noble instincts of the soldier." And again "Lord Curzon is shown in the act of driving home the outspoken advice to the Khans and Sirdars assembled at the Quetta Durbar—advice thrust not with the sudden shocks of the proverbial time worn, nail hit hard, but with the slow and gentle, and withal enduring, turn of the modern screw, worming deep down into the hearts of the turbulent tribesmen." This, to say the least, must be an uncomfortable method of receiving advice.

We have said enough to show that the book is interesting, both as affording a glimpse of the manner in which native artists cartoon events and also as showing Lord Curzon in his *bahurupi*.

ENGLAND. By J. Nelson Fraser, M. A. (pp. 184. The Christian Literature Society for India). •

THIS book is not written as an eulogy of England, but to place before the educated Indian reader an account of England in the present day. We say at once that it succeeds. And it is of interest to the Englishman in that he may herein learn something of his character as portrayed for the Indian reader. We regret the author did not revise some parts of the text, instead of adding notes to correct those portions which were out of date. It is unfair to select isolated passages for criticism. We agree to differ and pass on. The picture of Windsor Castle should be omitted. For the rest we congratulate the author.

Nothing of importance has been omitted in his survey and the various subjects, from Climate to Amusements, Education to Political Institutions, Liberalism to English Morals, receive their due proportionate treatment. There are some obvious mistakes in fact, but apart from these, Mr. Fraser has written an excellent treatise and one we can cordially recommend.

A FOREST HEARTH. By Charles Major. (pp. 354. Macmillan and Co.)

A NOVEL by the author of "Dorothy Vernon of Haddon Hall" is taken up with anticipated pleasure. That anticipation is realised on reading the opening chapter and the interest is sustained right through the book. It is never allowed to flag, and he who can put this book down without finishing it at one sitting is hard to please. The story is a love tale of the "Blue River" in Indiana, with no heroes, no palaces, no grand people, nothing but human nature, the forests and a few simple country folk. Your reviewer will not spoil so good a tale by giving a bare outline. The portrait of the mother may be a trifle overdrawn, but he is in love with Rita and all his sympathy goes out to Billy—an old bachelor whose love for Rita is the means of working out all the difficulties Rita and Dic encounter. The tale is full of incident,—breathing with life, vivid and realistic—its descriptive passages are real, and its only fault, which is at once a recommendation, is that it is all too short.

A PASSAGE PERILOUS. By Rosa Nouchette Carey (pp. 455. Macmillan and Co.)

A REVIEW of this book is already written in the quotation at the head of Chapter IX.

"Judicious silence is far preferable to the truth roughly told."

MCTODD. By Catcliffe Hyne. (pp. 325. Macmillan and Co., London.)

A COLLECTION of stories concerning Mr. McTodd, whose father was Free Kirk minister at Scotland, while he was "a miserable understrapper on third-rate ships." The ingredients are "the mother at home to be provided for;" whaling

steamers, hidden treasure, Esquimaux, "an occasional fling of whiskey," and the usual details of this class of story. But they are dealt with in such a way that the yarns are full of interest, and we hope we have not heard the last of Mr. Mc-Todd, engineer, explorer, and humorist.

THE CHILDREN WHO RAN AWAY. . By Evelyn Sharp. (pp. 319. Macmillan and Co.)

THIS is a story to read and enjoy. There is no problem involved and the reader is spared anxiety: there is no crime to unravel and the reader is spared annoyance: there is no mystery and the reader is spared irritation. But the reader will be interested and amused and follow with keenness the adventures of the children who ran away. Although a book of children it is not only for children, and it is more than a relief for a grown-up to read such a book—which follows out the workings of a child's mind in so interesting a manner. It is a "story book" full of delightful things, and we thank Miss Sharp for giving us so much pleasure. If a reviewer *must* criticise it, he can only say—read it.

ACKNOWLEDGMENTS.

- | | | |
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 <i>Talks on Health.</i> Mrs. Brandler.
 <i>Manual of English Grammar.</i>
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|---|---|---|
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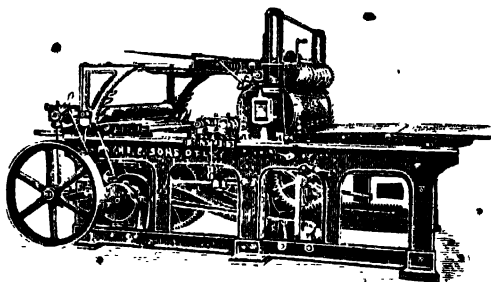
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To those members of the Indian Army who have been privileged to visit England, the memory of the reception which they received by all classes in the Mother Country will never fade. Wherever they went there was an enthusiastic welcome. But nowhere was the welcome more cordial than at Port Sunlight, the village which is known all over the world as the home of Sunlight Soap. Messrs. Lever Brothers took advantage of the visit paid by our brothers to Liverpool, and invited them to view their works and village. The invitation was accepted, and on Monday, 28th July, the entire contingent, under the command of Lieut.-Col. Dawson, travelled by special steamer from Liverpool to New Ferry, where they were met by the Port Sunlight Silver Prize Band, and escorted to Port Sunlight, about a mile and-a-half away, through gaily decked streets lined with cheering crowds of people. Flags and banners were displayed at every point, and the day being gloriously fine, the scene was most enchanting. As the stalwart soldiers marched along, many complimentary remarks were heard, and the impression they created was highly flattering. Mr. W. H. Lever, the Chairman and Founder of the Company, received the Contingent at the door of the offices, and each detachment was guided through the works by an official. The reserve so noticeable in the Indian soldiery was somewhat broken down, as wonder after wonder was viewed: and many expressions of delight and astonishment passed from man to man as they visited the various departments. After leaving the works, the detachments were re-formed, and entered Hulme Hall—a large and handsome dining room for the work girls—where the officers and men were entertained with light refreshments, fruit, cigars, cigarettes, etc. Before leaving the hall each man was presented with a book containing views of the Village and Works, describing in detail many points of interest to the visitor, and also a cardbox containing sample tablets of Sunlight Soap, each box bearing labels in the seven principal Indian languages. The men were charmed with their visit, and those who could speak a little English expressed their regret that they had only been able to stay such a short time. To the villagers the sight of a body of men of such splendid physique and attired in such varied uniforms was educational, and the distinctly polite, gentlemanly manner of all the soldiers impressed everyone. There was at no time the slightest semblance of rushing or crowding. Everything was done in the most orderly style, and where favours were conferred the soldiers were profuse in their thanks. On the other hand, our Indian brothers will take back to their countrymen and to their loved ones in India pleasant stories of their visit to Port Sunlight, and a tangible gift with ample and easily read descriptions of the uses of that Sunlight Soap of which they have often heard, which has made the pretty village on the Mersey possible and famous.

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